Bringing together the best of science and the best of development
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## ABBREVIATIONS

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<td>ADE</td>
<td>Alliance Deputy Executive</td>
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<tr>
<td>AGRA</td>
<td>Alliance for a Green Revolution in Africa</td>
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<tr>
<td>AgGDP</td>
<td>agricultural gross domestic product</td>
</tr>
<tr>
<td>AGM</td>
<td>Annual General Meeting</td>
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<td>AGROCURI</td>
<td>Agricultural Open Curriculum and Learning Initiative</td>
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<td>AHC</td>
<td>Ad Hoc Committee</td>
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<tr>
<td>AMBIONET</td>
<td>Asian Maize Biotechnology Network</td>
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<tr>
<td>APMC</td>
<td>Agricultural Produce Marketing Committee</td>
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<td>ARIs</td>
<td>Advanced Research Institutes</td>
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<tr>
<td>ASARECA</td>
<td>Association for Strengthening Agricultural Research in East and Central Africa</td>
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<tr>
<td>ASB</td>
<td>Alternatives to Slash and Burn</td>
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<tr>
<td>ATDF</td>
<td>African Technology Development Forum</td>
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<td>AWARD</td>
<td>African Women In Agriculture Research and Development</td>
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<tr>
<td>BRICS</td>
<td>Brazil, Russia, India, and China</td>
</tr>
<tr>
<td>CAGR</td>
<td>Compound Annual Growth Rate</td>
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<tr>
<td>CAPPi</td>
<td>Collective Action and Property Rights</td>
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<td>CAS-IP</td>
<td>Central Advisory Service for Intellectual Property</td>
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<td>CBC/CDC</td>
<td>Committees of Board Chairs and Center Directors</td>
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<td>CBD</td>
<td>Convention on Biological Diversity</td>
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<td>CCERs</td>
<td>Center Board Commissioned External Reviews</td>
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<td>CDM</td>
<td>Change Design and Management</td>
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<td>CDMT</td>
<td>Change Design and Management Team</td>
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<td>CEDAW</td>
<td>Convention on the Elimination of All Forms of Discrimination Against Women</td>
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<td>CFAR</td>
<td>CGIAR Fund for Agricultural Research</td>
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<td>CGI</td>
<td>crop genetic improvement</td>
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<tr>
<td>CGIAR</td>
<td>Consultative Group on International Agricultural Research</td>
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<tr>
<td>CIAT</td>
<td>Centro Internacional de Agricultura Tropical (International Center for Tropical Agriculture)</td>
</tr>
<tr>
<td>CIFOR</td>
<td>Center for International Forestry Research</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>Centro Internacional de Mejoramiento de Maiz y Trigo (International Maize and Wheat Improvement Center)</td>
</tr>
<tr>
<td>CIP</td>
<td>Centro internacional de la Papa (International Potato Center)</td>
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<td>CMDT</td>
<td>Change Design and Management Team</td>
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<td>CONDESAN</td>
<td>Consortium for Sustainable Development of the Andean Ecoregion</td>
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<td>Catholic Relief Services</td>
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<td>Abbreviation</td>
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<tr>
<td>CSI</td>
<td>Consortium for Spatial Information</td>
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<td>CSOs</td>
<td>Civil Society Organizations</td>
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<td>CSU</td>
<td>Council of Scientific Unions</td>
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<td>CWANA</td>
<td>Central and West Asia and North Africa</td>
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<td>DDGs</td>
<td>Deputy Director Generals</td>
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<td>DGs</td>
<td>Director Generals</td>
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<td>DGF</td>
<td>Development Grants Fund</td>
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<td>DGF</td>
<td>Development Grant Facility</td>
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<td>ECA</td>
<td>Economic Commission for Africa</td>
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<td>ecIAs</td>
<td>ExCo Impact Assessments</td>
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<td>EIARD</td>
<td>European Initiative for Agricultural Research for Development</td>
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<td>Ers</td>
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<td>ExCo</td>
<td>Executive Council</td>
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<td>EpiAs</td>
<td>Ex-Post Impact Assessment</td>
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<td>EPMRs</td>
<td>External Program and Management Reviews</td>
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<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>FARA</td>
<td>Forum on Agricultural Research in Africa</td>
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<td>FCP</td>
<td>Facilitated Change Process</td>
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<td>FIS</td>
<td>Finance Information System</td>
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<td>FPs</td>
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<td>Generation Challenge Program</td>
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<td>GFAR</td>
<td>Global Forum on International Agricultural Research</td>
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<td>GMO</td>
<td>Genetically Modified Organisms</td>
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<td>GPG</td>
<td>Global Public Good</td>
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<td>GRPC</td>
<td>Genetic Resources Policy Committee</td>
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<td>GRPRRS</td>
<td>Global and Regional Program Reviews</td>
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<td>HPCP</td>
<td>HarvestPlus Challenge Program</td>
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<td>IA</td>
<td>Impact Assessment</td>
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<td>IAA</td>
<td>Integrated Aquaculture Agriculture</td>
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<td>IAEG</td>
<td>Impact Assessment and Evaluation Group</td>
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<td>IARCs</td>
<td>international agricultural research Centers</td>
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<td>IAs</td>
<td>Internal Audits</td>
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<td>ICARDA</td>
<td>International Center for Agricultural Research in the Dry Areas</td>
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<td>ICRAF</td>
<td>World Agroforestry Centre</td>
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<td>ICRISAT</td>
<td>International Crops Research Institute for the Semi-Arid Tropics</td>
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<td>ICTs</td>
<td>Information and Communications Technologies</td>
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<td>ICW2000</td>
<td>International Centers Week 2000</td>
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<td>IDA</td>
<td>International Development Association</td>
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<td>IEG</td>
<td>Independent Evaluation Group</td>
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<td>IEPs</td>
<td>Independent and Eco-regional Programs</td>
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<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
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<td>IFAR</td>
<td>International Fund for Agricultural Research</td>
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### Abbreviations

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<tr>
<th>Acronym</th>
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<tr>
<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<td>IITA</td>
<td>International Institute of Tropical Agriculture</td>
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<td>ILRI</td>
<td>International Livestock Research Institute</td>
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<td>INGOs</td>
<td>International NGOs</td>
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<td>INRM</td>
<td>Integrated Natural Resource Management</td>
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<td>IOECD</td>
<td>Organization for Economic Cooperation and Development</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>IPG</td>
<td>International-Public-Good</td>
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<td>IPGRI</td>
<td>International Plant Genetic Resources Institute (now called Bioversity)</td>
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<td>IPM</td>
<td>Integrated Pest Management</td>
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<td>IPR</td>
<td>Intellectual Property Rights</td>
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<td>IRDP’s</td>
<td>Integrated Rural Development Projects</td>
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<td>IRR</td>
<td>internal rate of return</td>
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<td>IRRI</td>
<td>International Rice Research Institute</td>
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<td>iSC</td>
<td>interim Science Council</td>
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<td>ITPGRFA</td>
<td>International Treaty on Plant Genetic Resources for Food and Agriculture</td>
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<td>IVC</td>
<td>Inland Valley Consortium</td>
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<td>IWMI</td>
<td>International Water Management Institute</td>
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<td>LAC</td>
<td>Latin America and the Caribbean</td>
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<td>LDCs</td>
<td>Least Developed Countries</td>
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<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>MDTF</td>
<td>Multi-Donor Trust Fund</td>
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<td>MENA</td>
<td>Middle East and North Africa</td>
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<td>MfDR</td>
<td>Managing for Development Results</td>
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<td>MFR</td>
<td>Managing for Results</td>
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<td>MTPs</td>
<td>Medium Term Plans</td>
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<td>NARO</td>
<td>national agricultural research organizations</td>
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<td>NARS</td>
<td>National Agricultural Research Systems</td>
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<td>NERICA</td>
<td>New Rice for Africa</td>
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<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>NGOC</td>
<td>NGO Committee</td>
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<td>NRM</td>
<td>Natural Resource Management</td>
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<td>ODA</td>
<td>official international assistance</td>
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<td>OED</td>
<td>Operations Evaluation Department (now IEG)</td>
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<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>OPV</td>
<td>Open Pollinated Varieties</td>
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<td>PANS A</td>
<td>Policy Analysis and Advisory Network</td>
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<td>PARC</td>
<td>Public Awareness and Resource Mobilization Committee</td>
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<td>PEPFAR</td>
<td>President’s Emergency Fund for Aids Relief</td>
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<td>PM</td>
<td>Performance Measurement</td>
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<td>POR</td>
<td>Policy-Oriented Research</td>
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<td>Abbreviations</td>
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<tr>
<td>PMS</td>
<td>Performance Measurement System</td>
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<td>PPVFR</td>
<td>The Protection of Plant Varieties and Farmers’ Rights</td>
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<td>PRGA</td>
<td>Participatory Research and Gender Assessment Program</td>
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<td>PSC</td>
<td>Private Sector Committee</td>
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<td>PVS</td>
<td>Participatory Variety Selection</td>
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<td>QPM</td>
<td>Quality Protein Maize</td>
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<tr>
<td>ROCARIZ</td>
<td>Regional Rice Research and Development Network for West and Central Africa</td>
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<tr>
<td>SBSTTA</td>
<td>Subsidiary Body on Scientific, Technical and Technological Advice</td>
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<td>SC</td>
<td>Science Council</td>
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<td>SCOPAS</td>
<td>Standing Panel on Priorities and Strategies</td>
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<td>SGRP</td>
<td>System-Wide Genetic Resources Programme</td>
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<td>SINGER</td>
<td>System-Wide Information Network for Genetic Resources</td>
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<td>SO</td>
<td>System Office</td>
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<td>SPIA</td>
<td>Standing Panel on Impact Assessment</td>
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<td>SPME</td>
<td>Standing Panel on Monitoring and Evaluation</td>
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<td>SPMS</td>
<td>Standing Panel on Mobilizing Science</td>
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<td>SPPS</td>
<td>Standing Panel on Strategies and Priorities</td>
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<td>SRI</td>
<td>System of Rice Intensification</td>
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<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<td>SSACP</td>
<td>Sub-Saharan Africa Challenge Program</td>
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<td>SWEPs</td>
<td>System-Wide and Eco-Regional Programs</td>
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<td>SWLP</td>
<td>System-Wide Livestock Initiatives</td>
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<td>SWPs</td>
<td>System-Wide Programmes</td>
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<td>TAC</td>
<td>Technical Advisory Committee</td>
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<td>TORs</td>
<td>Terms of Reference</td>
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<td>TRIPS</td>
<td>Trade Related Aspects of Intellectual Property Rights</td>
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<td>TWAS</td>
<td>Third World Academy of Science</td>
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<td>UNCCD</td>
<td>United Nations Convention to Combat Drought and Desertification</td>
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<tr>
<td>UNCTAD</td>
<td>The United Nations Conference on Trade and Development</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNEP</td>
<td>United Nations Environment Program</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<td>UPOV</td>
<td>International Convention for the Protection of New Varieties of Plants</td>
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<td>USDA</td>
<td>United States Department of Agriculture</td>
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<td>WCT</td>
<td>World Intellectual Property Organization Copyright Treaty</td>
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<td>WARDA</td>
<td>Africa Rice Center</td>
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<td>WFP</td>
<td>World Food Program</td>
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<td>WGIII</td>
<td>Working Group III</td>
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<td>YPARD</td>
<td>Young Professionals In Agricultural Research and Development</td>
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OVERVIEW: SUMMARY OF FINDINGS AND RECOMMENDATIONS

The importance of reviewing the Consultative Group on International Agricultural Research (CGIAR) became starkly apparent to the Independent Review Panel in 2008 as food prices soared. World leaders called for rapid action to stem the effects of food price inflation as 100 million people were pushed into poverty and the ranks of the 800 million already suffering hunger began to swell. As trade barriers on rice and other food commodities were resurrected and food price protests hit many developing countries, the world community was reminded of the importance of food security to economic and political stability. The questions posed to the Panel by the CGIAR membership became compelling.

In our visits to the Centers and attendance at various forums over the year, the Panel was struck by the energy and dedication that Center leadership and scientists have for their work. We participated in several retreats with CGIAR members and stakeholders who worked hard for almost a year in an intensive change exercise to renew the CGIAR as a forum for bringing together the best of science and the best of development.

The CGIAR, however, suffers signs of age as it turns 37. It is in urgent need of structural change if it is to respond with its full potential to new challenges of food and environmental security. A renewed and rebalanced partnership is essential for the CGIAR System to improve its game.

In support of this renewal, the Panel offers its answers to the questions posed by the CGIAR Members in the form of key findings and recommendations, supported by a summary of its findings and a model for moving forward, detailed in this Synthesis Report. The Panel’s full analysis is in its Technical Report.

The Panel’s key conclusion is that the Centers contribute value, but the CGIAR System is not achieving its full potential. Governance transformation is needed for leadership in a rebalanced partnership to articulate a shared, convincing strategy with a results orientation, clear authorities, and effective decisionmaking.

The independent CGIAR network of research Centers matters—for achieving food security, for dealing with climate change, and for supporting achievement of the Millennium Development Goals. The new global architecture for agriculture will need to respond rapidly to emergencies, such as crop, animal, and zoonotic diseases of global significance. It will also need to make sustained investments over the coming decades to address such complex challenges as mitigation and adaptation to climate change and biotechnology for the poor.
Despite working in a complex environment with significant management challenges, CGIAR-supported research has seen high returns. Global and regional meta-evaluations suggest that CGIAR investments have paid for themselves by a wide margin, even considering just a few well documented successes. Its multidisciplinary research activities and its range of collaborations position the CGIAR network of Centers as one for the world’s most innovative development partnerships—and as a 21st century organization.

But this is a serious moment in the CGIAR System’s history. Notwithstanding its contributions and potential, the CGIAR system has major shortcomings and is hitting below its weight. It has been largely absent from the key global debates on the food crisis and climate change, it lacks a coherent strategy, it has experienced financial and administrative upheavals in recent years, and the trust between its constituent Centers and the donors that support them has deteriorated.

Center performance is uneven, financing arrangements have not kept pace with needs, system governance has become cumbersome and ineffective, and management practices require improvement. Financing in real terms has stagnated since the 1990s. The share of unrestricted funds has declined steadily since 1998 and with it capital investment. The Centers are experiencing difficulty attracting and retaining top scientists. As a consequence, the CGIAR Centers’ influence and impact are less than they could be.

The CGIAR System has been attempting reform since 1994. Incremental, these attempts have largely failed to meet their ambitious aims. Needed now is extensive reform, particularly to address a dysfunctional governance structure that is at the root of the System’s inability to change.

A new compact—one based on separate governance and management and predictable funding—is needed to rebuild the cooperative spirit between Members and Centers and bring the best of science together with the best of development. Effective structural reform as the vital first step should allow new leadership to emerge. The rebalanced CGIAR partnership, with the mutual accountability recommended in this report, should facilitate the formulation of a bold collective strategy.

These challenges offer an opportunity for renewing and strengthening the international agricultural architecture as well as the CGIAR System. With a 3,300-person scientific staff dedicated to poverty reduction and one of the world’s largest and most important germplasm collections, the System can reaffirm its value to humanity. It generates and delivers international public goods—scientific and technological knowledge, agricultural research products and services, and research capacities to respond to and anticipate demand—that are essential to improve agricultural productivity and environmental sustainability in the poor regions of the world.
Findings

Finding 1: The CGIAR-supported Centers contribute substantially to agricultural productivity and natural resource management

Overall, recent impact assessments of CGIAR research reveal very high returns on investment. A recent meta-analysis of all ex post impact assessments over the System’s lifetime found benefits suggesting that total investments in the CGIAR have paid for themselves by a wide margin—benefits ranged from $12 billion to $120 billion. Regional impact studies in South Asia and Sub-Saharan Africa point to substantial benefits of crop genetic improvement research in Asia and of crop genetic improvement and biological control research in Africa. But they also illustrate that research impacts in Africa have been limited geographically, with lower positive returns on investment than in other regions—despite Sub-Saharan Africa’s receiving the largest regional share of CGIAR investment (41 percent over the CGIAR’s lifetime).

Crop genetic improvement research has received the most assessment and has generated evidence of profound positive impacts from the broad diffusion of improved varieties and subsequent spillover effects. Yield-enhancing and yield-stabilizing modern varieties produced by the Centers and their national partners have produced benefits of more than $10 billion annually, due largely to improved wheat, rice, and maize. Recent research on a range of crops and traits (drought resistance and nutritional content) are generating outputs and outcomes assessed as very promising for potential impact.

Recent studies on the impact of natural resource management research, including pest management, show substantial benefits and positive internal rates of return on investment. Some benefits have occurred at a considerable scale and are of international significance. Notable examples are the work of the rice-wheat consortium in South Asia, biological control programs in Africa, and the Alternatives to Slash and Burn Program. But much of the research impact for natural resource management is still on a much smaller geographic scale than that for crop genetic improvement, often because adoption depends on local collective action, extension services, or assignment of property rights. That means that the spillovers can be very limited, and the overall impacts constrained.

The number of studies on the impact of policy-oriented research has risen considerably in recent years. Policy-oriented research offers strong potential for generating broad impacts affecting many people in many countries. Estimating benefit-cost ratios is more difficult for policy-oriented research than for most other types of research. Even where the evidence is clear that policy advice was applied, the advice is usually only one of many influences.
Finding 2: The CGIAR and Centers need to take a more strategic approach to partnership

The word *partnership* is greatly overused in the discourse of international development. Yet the CGIAR System cannot function effectively as a component of an international public goods delivery system without robust partnerships that ensure the distribution and use of CGIAR outputs. Although Centers have forged many high-value partnerships, most are short term and ad hoc. The resources, incentives, and strategic arrangements needed for an effective international public goods delivery system are not in place. The challenge for the CGIAR donors and Centers is to be part of such a system and to exercise vision and leadership in bringing it about. The green revolution of the 1970s in Asia was driven by a strategic vision that included the scientific discoveries of the CGIAR contributing to a delivery system that catalyzed large-scale agriculture and infrastructure investment. This resulted in an international public goods delivery system through strong partnerships between the CGIAR and the national agricultural research systems (NARS) and advanced research institutes.

New partnerships are needed to meet today’s challenges—of food insecurity, nutritional inadequacy, and climate change—especially in Africa. To be successful, these partnerships will need to apply the lessons of the first green revolution in Asia, with its clear long-term strategy for delivery system requirements, including financing for capacity and institution building. Without this, the current attention of world leaders on issues of food production and food security for the poor and vulnerable will come to very little.

Key characteristics of successful partnerships include:

- Written and mutually endorsed understanding of the “coincidence of objectives.”
- Stipulation and agreement on mutual expectations and the mechanisms for dispute resolution.
- Specification of “end points,” milestones, and a framework for ongoing evaluation.
- Inclusion of exit strategies and the conditions for their enactment.
- Where finances are part of the partnership, advance understanding on resource allocations, accountability, and management standards.

Finding 3: The Centers have made progress in addressing intellectual property protection, but more needs to be done

The CGIAR and its Centers’ capacity to handle issues of intellectual property and governance of genetic resources affects the status of the collections in genebanks, the exchange of germplasm, the ability of the Centers to collaborate with NARS and farmer organizations, and the kinds of partnerships they can establish with the private sector and advanced research institutes. The CGIAR cannot ignore or casually handle issues of intellectual prop-
property protection. While some Centers have relatively developed regimes, high levels of awareness, and staff dedicated to dealing with intellectual property issues, the majority of the Centers do not have in-house staff responsible for intellectual property issues and tend to deal with these issues on an ad hoc basis, often reacting to crisis. The general view among people consulted by the Independent Review Panel is that Centers need to do more to effectively deal with issues of intellectual property protection.

**Finding 4: Gender is not adequately integrated into Centers’ research mandates and outreach**

The Panel’s analysis indicates that the CGIAR System appreciates gender integration as being important or very important to its research mandate and understands that the CGIAR and the Centers have not been fully effective in integrating gender into their research and outreach. But there is scant evidence to indicate that the contributions of women to agriculture and their special knowledge and needs are addressed at a level commensurate with their importance to agriculture, as recognized by the CGIAR and Center leadership. Institutionally, the CGIAR System has not built on best practice institutional accountability approaches to mainstream gender and to devise special measures, where necessary, to address the specific needs of women and girls. There is misplaced reliance by CGIAR leadership on staff advocacy functions below the executive level in convening Centers and in individual Centers, diverting responsibility from operations. Even so, there is a readiness to develop a systemwide policy, strategy, and results framework.

**Finding 5: The Centers are in a quiet financial crisis**

Funding for the Centers has not grown in real terms for more than a decade (figure 1). In contrast, several international development institutions have received record replenishments of their concessionary and grant funds, suggesting that the problem has not been the unavailability of resources but a failure of the CGIAR and Centers to set up institutions that mobilize funds well.
Funding has been increasingly piecemeal rather than strategic. Every review of the CGIAR in the past decade has recommended stronger central coordination of funding and a tighter link between priorities, performance, and fund allocation. Yet funding has become increasingly “restricted,” with a proliferation of smaller, targeted grants. While this has benefits for some donors, it means larger administrative costs for Centers, greater financial risk, and less flexibility to follow promising lines of research. It has also resulted in falling capital investments by the Centers at the risk of falling behind scientifically. All growth in funding from nonmembers is restricted. And while so far supporting CGIAR objectives, nonmember funding can also lead to further fragmentation of CGIAR and Center core objectives.

The CGIAR Centers have been placed in an invidious position by the lack of clear, adequate, and consistent incentives. The discourse of the donor agencies has been rooted in the Paris Declaration principles of alignment, harmonization, devolved ownership, and mutual accountability. The incentives provided to the CGIAR by donors, however, have pushed competition and individual donor ownership, resulting in fragmentation. Many Centers currently manage 200–300 separate, relatively small projects, many with different terms, conditions, requirements, fiscal year reporting schedules, and overhead rates.

There are deficiencies in financial management at some Centers and limited tools for managing financial risk across the partnership. The cross-cutting multipartner Challenge Programs have increased the complexity of the research network and partnership and the difficulty of financial management and control. The ad hoc arrangements for different Challenge Programs do not provide a strong foundation of financial systems to cope with the rising numbers of such programs.
In good times, these would be significant problems. During the current food price crisis, new ideas and approaches are needed even more urgently. Because the problems are interrelated, the Panel believes that the financial challenges can probably be resolved only as part of an overall change in the institutional structure of the partnership. Centers need more resources, larger reserves, and especially more unrestricted funds, but donors are unlikely to provide them without greater assurance of strategic effectiveness and performance. Needed: a new institutional and financial structure with new tools for resource mobilization as part of a general reform package.

Finding 6: Dysfunctional governance and management constrain the System’s potential

The CGIAR Charter enshrines what may be called “dispersed governance,” with no effective locus for systemwide decisions on important governance matters. Because there is no empowered “entry point” into the CGIAR and no accepted leader who can act with authority for the Centers, decisionmaking is shifted down to individual Center boards or up to the Consultative Group. The expression of collective will of the members is at the Annual General Meeting (particularly its Business Meeting), a large body that can take decisions only by consensus. Specific decisions on vision, partnerships, organizational structure, research activities, and resource allocation are made by the individual boards and managements of the Centers. Between the Centers and the Annual General Meeting of the Consultative Group are bodies fulfilling only advisory or nonbinding oversight and monitoring functions.

The lack of a focal point for Centerwide decisionmaking has several pernicious outcomes. First are high transaction costs, identified by new and existing donors and the sister institutions in the international system as a serious disincentive to working with the CGIAR. Second is the inability of the network of Centers to mobilize quickly to respond to opportunities or to position their collective competence to create opportunities in the rapidly changing context of research for development.

There is no use of modern results-based strategy and management approaches that would help CGIAR entities decide where accountability and responsibility for final results fall between production of the core components and complementary delivery components of the international public goods delivery system.

The CGIAR has attempted reform several times since the mid-1990s, with the twin aims of ensuring strategic relevance and securing adequate, stable, and predictable financing. All efforts proved largely unsuccessful. The CGIAR is once again attempting change through a highly ambitious change management initiative. The Panel considers that a successful outcome will require taking careful account of the lessons of prior efforts: a structural
transformation in CGIAR governance is the key precondition for the success of all other reforms.

Recommendations

Recommendation 1. Rebalance the Center-donor partnership to sustain the CGIAR’s unique contributions

A central finding of the Panel is that the 37-year partnership between Members/donors and the research Centers is a robust comparative advantage of the CGIAR. No other international arrangement rivals this common-cause partnership of development agencies and agricultural science with its nearly four decades of accumulated knowledge and social capital. This partnership should be preserved. But it needs rebalancing (box 1).

- The separate responsibilities and authorities of Members/donors and of the Centers need to be clarified and rationalized in a dual structure of a Consortium (a legal entity owned jointly by the Centers) and a CGIAR Fund (formed and managed by donors), with some bridging institutions (figure 2).
- Some common institutions of the partnership need to be maintained.

Box 1 Criteria for getting on with rebalancing the Center-donor partnership

The Panel recommends a new systemwide governance model based on nine criteria:

1. A single entry point is required to position the CGIAR in international forums and to reduce the transaction costs identified by potential funders and international institutional partners.
2. The functions of governance and management need to be differentiated and clearly separated to avoid conflicts of interest. Donors should not be involved in managing the Centers. Management and responsibility for operations should be separated from oversight.
3. Decisionmaking bodies should be empowered to take binding decisions and have commensurate authority to ensure implementation, at least in clearly circumscribed areas essential for CGIAR System functioning.
4. Governance arrangements require formal foundations—legal in the case of the Consortium—to increase legitimacy and improve effectiveness. This requires establishing rules-based membership conditions that include enforcement mechanisms.
5. Adequate and predictable financing, particularly for international public goods, is required to allow the Centers to retain a cadre of high-caliber scientists to tackle mid- and long-term scientific challenges. Predictable and adequate financing must be earned. Financing arrangements must take full account of the need for donors to demonstrate results and value for money.
6. Paris Declaration principles—alignment of developing country strategic priorities and CGIAR strategy and programs, harmonization of programmatic funding levels and reporting requirements, devolved ownership, and mutual accountability—should be applied to the CGIAR.
7. A fully independent evaluation and assessment function needs to be set up. The Science Council’s role as evaluator is incompatible with its role as advisor and honest broker on scientific excellence. The two roles need to be separated.
8. The CGIAR must maintain high standards of excellence in research, while ensuring that key partners use the CGIAR outputs to achieve development impact. The apparent contradiction between focusing on scientific excellence and research achievements and giving priority to achieving development outcomes and results needs to be
reconceptualized using advanced models of international public goods and results management.

9. The political viability of implementing the new governance arrangements for the CGIAR should be acceptable to the key players in the CGIAR community. A time-targeted plan to implement the proposed governance reforms should be agreed to and supported financially.

Figure 2: A rebalanced model of system governance

Donors need to strike a new balance between providing unrestricted resources to the Centers, achieving greater programmatic coherence in funding, and strategically targeting grants. In addition, resource allocation needs to be influenced more by Center performance. In return, the Centers need to work closely together to bring greater coherence to the network, to be more programmatic in their outlook, to make firm strategic and organizational decisions and to demonstrate cost-efficiency. Finally, the Centers cannot be held accountable for the final delivery of their products to the poor, but they do need to be part of a larger strategy and set of arrangements with donors and other partners to achieve specific development-based outcomes.

After careful consideration, the Panel has concluded that four actions are vital:
1. The CGIAR System should separate governance and management functions. The roles of donors and management should be separated to avoid conflicts of interest. The management responsibility for operations should be separated from oversight.

2. The donors should establish a CGIAR Fund for Agricultural Research as a new channel for predictable, unrestricted funding to Centers and restricted funding to programs. Money should be allocated from the Fund to Centers and to programs in a rules-based manner, partly according to performance. In deciding how much grant funding to channel through the pooled Fund, the donors should keep in mind their Paris Declaration commitment to provide two-thirds of their development aid on a program rather than a project grant basis by 2010.

3. The Centers should strengthen their institutions for common action by consolidating common services, common policy and strategy, and program administration in a jointly owned Consortium.

4. Both donors and Centers should set up decisionmaking procedures based on clear authorities and shared strategic objectives. Nonbinding approaches to decisionmaking are no longer adequate for a collective enterprise that spends half a billion dollars of public money annually, resources set to increase substantially if the foregoing actions are taken.

The Panel has considered whether the recommended approach to governance would be more economical as well as more effective than the existing system. It seems clear that the true costs of governance will be less when the dysfunctions of the current system are remedied.

Recommendation 2. Establish a legally structured Consortium of Centers

Building on the conclusions of prior studies and the lessons of past reform efforts, the Panel recommends establishing a new legally structured Consortium of Centers. It would be owned by the Centers, governed by a board chosen by them, and have a Chair and a Chief Executive Officer chosen through international competition. Its board would be assigned clear decisionmaking authorities, fiduciary, and due diligence accountabilities by the Centers and its decisions on all delegated matters would be binding on members. The Consortium would be rules-bound. As new, high-impact organizations appear over time, the rules should allow for new and expanded membership. It should not be a closed shop.

The Consortium would provide a single point of entry and, in partnership with the Fund, project a single coherent voice in international policy forums, a much stronger position than single Centers can occupy. The Consortium will enable the Centers to manage their common interests more coherently and strategically. In particular, it would provide an instrument for common services, program coordination and administration, and results-based management.
CGIAR Fund-supported programs should have an administrative home in the Consortium.

Many of the CGIAR’s main donors will continue to expect consolidations and demonstrations of major cost-effectiveness gains over the next few years, and this will affect decisions on levels of financing. The Panel believes, therefore, that the new Consortium must address as a very high priority the reality of total governance size and costs.

To improve on past performance in specific areas, a new Consortium of Centers should:

- **Improve financial management and financial reporting.** Specifically, the Consortium should evaluate transaction costs of small grants and establish minimum grant requirements, move to full cost recovery on all projects, increase reserve requirements to 180 days (and should not be penalized for higher reserves), immediately assess the need for capital improvements across Centers, provide more detail in financial reports on non-member contributions, and develop annual financial statements for Challenge Programs, which should be subject to an annual independent audit.

- **Simplify the Challenge Programs to focus on Center-led consortia.** This change should not reduce the valuable involvement of external institutions in program development and implementation if it is made a condition of program award and if proposals are adequately peer reviewed. It will help make Challenge or “mega” Programs an effective tool of System strategy. Further, the Challenge Programs and Systemwide and Ecoregional Programs (SWEPs) should be integrated into a more strategic (derived from System strategy and strategic objectives) new mechanism for inter-Center programmatic research with partners. Design and management of these programmatic initiatives should be based more on what is required to achieve results and less on a portfolio of specific instruments. The Consortium of Centers could provide a mechanism for managing programs that would avoid conflicts of interest and improve financial oversight.

- **Establish common services such as strategic communications, financial reporting, and results management systems, internal audit, information technology, and properly equipped human resources function.** The human resources function must ensure equity in internal Consortium and Center hiring, training, and compensation and other rewards. Once established, the new function could prepare gender and diversity policies. As the new human resources function becomes established, the Gender and Diversity Program should gradually hand over its mainstream activities (such as the staff survey) to human resources.

- **Centers should develop a common strategy to protect their internally generated intellectual property and know-how, including filing their own patent applications.** The CGIAR must resolve issues related to its policy of making research results publicly available. The interests of the CGIAR and developing countries must be respected, along with the interests of public sector companies. These issues have been pending for more than a decade, and the Panel recommends urgent and decisive attention.
Recommendation 3. Establish a CGIAR Fund for Agricultural Research

The new CGIAR Fund for Agricultural Research would be established under a governing Council that would receive, hold, commit, and allocate financial resources assigned to it in trust. This would be principally a shareholder governing body made up of contributing members, including foundations. An option would be to assign voting shares on the basis of groupings (constituencies) to accommodate both large and smaller shareholders and other stakeholders.

The Fund would work to ensure follow-through on financial pledges, to receive and hold funds provided to the Fund, and to make funds available to the Consortium of Centers. In making funds available, it would apply the conditions and schedules agreed in multiyear financing discussions, including performance- and results-based reporting, milestones, and benchmarks. Together with the Board of the Consortium, it would be responsible for ensuring that transparency and full cost recovery are applied to all financing agreements falling outside of the Fund.

Once allocated from the CGIAR Fund to the Centers, funds should be unrestricted. Financial management should be strengthened, partly by giving programs a common administrative home in the Consortium, assuming that the Consortium would have a formal Finance Committee and would be accountable to the Fund for financial management of contributions.

The key responsibilities of the Fund would be to lead funding negotiations, to maintain strong links with the development and research community on poverty reduction, and to create opportunities for complementary programs to support the science and research of the Centres. The Fund would use its development knowledge to allocate its resources to programs and Centers according to agreed criteria and rules.

The main functions to be carried by the Fund would include:

- Establishing a multiyear financing mechanism on the lines recommended in this report and based on the Monterrey principles of good donorship (adequacy and predictability of financing and mutual accountability for results). The aim should also be that such financing equal approximately two-thirds of total CGIAR financing by 2010. The CGIAR Chair would exercise collective leadership in this regard and would provide oversight for establishing the Fund.
- Approving transfers from the Fund to the Consortium based on agreed schedules, performance-based indicators, targeted milestones and reviews of the specific program proposals that would follow from the agreed strategic framework.
- Ensuring accountability and standards of due diligence over all funds held and assigned to the Consortium.
The World Bank should maintain its special relationship with the CGIAR and its affiliated Centers. It should focus its engagement on strategy, resource mobilization and allocation, and building of the substantive links between the Bank and the development community, including its own Agriculture and Rural Development Department. The World Bank needs to disengage from operational management of the CGIAR network of Centers. The leadership of the World Bank in consultative group arrangements argues strongly that the Bank should assume the leadership of this revitalized and modernized body. The Bank’s convening power would be an essential ingredient of success. The World Bank should chair the new Fund and cochair strategy and replenishment-like triennial meetings with the Consortium.

**Recommendation 4. Support the Consortium and CGIAR Fund with a science advisory board and an independent evaluation unit**

The Panel considered what common institutions should be maintained as part of a strong partnership between the Centers (and their joint Consortium) and the proposed Fund, concluding that there should be at least three:

- A joint strategy and results framework developed for the inaugural conference and renewed preferably as part of replenishment-like negotiations on a triennial basis.
- An independent evaluation unit, reporting to the council of the Fund, but working closely with the board of the Consortium as well.
- A committee of eminent advisors that form a science advisory board. It might be called the Science Council, as at present, or perhaps something broader if the inaugural conference decides to include anti-poverty expertise as well as science expertise.

*Joint Strategy and Results Framework*: The Panel recommends establishment of a system-wide strategic management for results framework. Strategic results frameworks are the key link between donors and Centers, the glue that holds the CGIAR System together. They should be prepared in consultation with all relevant partners, including those in charge of scientific advice and those responsible for independent evaluations.

Although Centers have put in place strategic planning, management, and performance measurement systems, these are as yet absent at the System level. In addition to guiding priority setting and resource allocation, jointly developed systemwide strategic management for results frameworks provide the means for grounding the mutual accountability between donors and Centers on indicators, facts, and evidence. These, in turn, increase transparency and allow performance assessment of both parties in achieving commonly defined objectives and results. Together with an international public goods delivery system approach, these frameworks inform the design and implementation of partnerships and lead to an effective division of labor between Centers and their partners. They estab-
lish clear lines of accountability for activities that are directly under Center control, and of responsibility for influencing partners in those they do not control.

The results framework would be the basis for Performance Contracts between the Consortium and the Fund, against which implementation would be managed and performance monitored. As managing for results is essentially a responsibility of management, the Consortium should take the lead on performance management and measurement once new systems are established. The Fund should develop its own results framework against which to judge its performance and report to the Consortium on its effectiveness.

*Science Advisory Board*: This would take up those functions of the current Science Council that are solidly service based and that aim to furnish the Consortium of Centers with the highest caliber of scientific counsel, including the results of foresight exercises to keep the work of the rebalanced partnership “ahead of the curve” on the needs of science for development. This body would provide the CGIAR System with scientific and technical advice and would be a broker to mobilize science and technology for agricultural development.

As required by the Consortium, it would also provide advice in the formulation of strategy and program proposals. It would not, however, carry out performance evaluations, as is the current practice of the Science Council. This is at fundamental variance with accepted best practice, as it has placed the Science Council in a conflicted position, whereby it provides scientific and programmatic advice, mandates programmatic norms and standards, and evaluates performance arising from its advice but without accountability for the performance.

The Panel recommends that the strategic role of the current Science Council, embodied in the former activities of the Science Council’s Standing Panel on Priorities and Strategies and the Standing Panel on Mobilizing Science, be made the principle role of the future Science Advisory Board. This body should remain an independent advisory body that provides advice to the Consortium of Centers. Its advice will also be useful to the donor Fund, but the Science Advisory Board should not in any way be an instrument of the Fund to organize or conduct monitoring and evaluation of the Centers or Consortium.

A future role for the Science Advisory Board should include strategic studies on issues of potential importance to the CGIAR and to global agricultural research for development. Relative to current Science Council activity, these studies need to be increased and made more timely in their delivery. Most importantly, they need to be developed in consultation with the Centers, with a clear initial understanding of how their results will be used.

The Panel also recommends that the current focus of the Science Council’s Standing Panel on Impact Assessment remain as an activity of the science advisory body as self-assessment assistance. Further, the Panel stresses the need to better assess the impact of all research areas, improving methods and levels of assessment for natural resource man-
agement and policy-oriented research and for capacity building, and understanding the contribution of all these research activities to the delivery of specific strategic objectives. In this context, the Panel also recommends continued effort to understand the impact of CGIAR research on poverty reduction. There is a particular need to focus on understanding the impacts of CGIAR research in Africa, given the comparatively low historical impact and recent investment and promising outputs. Finally, the Panel recommends that future impact assessment make efforts to accurately assess environmental, gender, and other indirect effects of agricultural research for development. There are some impact assessment activities that are most appropriately undertaken by the Centers themselves, and the links between the science advisory body and the Consortium regarding impact assessment would need to be worked out in more detail.

Independent Evaluation Unit: The Panel also recommends that an Independent Evaluation Unit be established to conduct systems reviews and to evaluate progress on the Joint Strategy and nested Center and program strategies. That is, as well as conducting overall systems evaluations, it would also take on the Science Council’s current role in managing external evaluations of CGIAR activity, including Centers and Challenge Programs. The Consortium of Centers will need to develop their own capacity for results-based performance management and measurement.2

The Independent Evaluation Unit would report to the Council of the Fund. The Evaluation Director would develop an evaluation strategy and work plans with the input of the Consortium, the Fund, and partners for tracking performance of the Consortium and the Fund toward the agreed strategic objectives and desired programmatic outcomes and impacts defined in the strategy and the results framework.

It would follow donor agreed guidelines for evaluating global programs. It would work to reduce transaction costs for the Centers by working toward joint evaluations with donors. It would report triennially on its own results and yearly on the evaluation results of the products set out in its multiyear strategy and on the implementation of the previous study recommendation. The program would also cover “process evaluations” to cover process effectiveness as well as investment effectiveness.

Recommendation 5. The Consortium and the Fund adopt a gender strategy based on accountability for integrating gender in the work of partnerships.

The Panel recommends that IFPRI, on behalf of the Consortium, develop by 2009 a gender strategy and results framework for inclusion in the new, overarching CGIAR strategy and results management process. IFPRI, along with the Participatory Research and Gender Analysis program, would establish an inter-Center and stakeholder task force to develop Systemwide strategic objectives for gender integration in Center research nested under
each of the CGIAR strategic objectives. The task force would review guidelines for all management and accountability instruments to include indicators of achievement of the proposed gender strategy.

The Panel recommends that one of the first mega programs to be developed address the productivity, production, and sustainability issues facing women in agriculture and the special health and nutrition needs of women and girls.

The Panel also recommends expansion of the Gender and Diversity African Women in Agricultural Research and Development (AWARD) Program into a global scientific capacity-building program for women and Group 2 nationals. Through a joint venture with universities in Organisation for Economic Co-operation and Development countries and with centers of excellence in developing countries, this would increase the number of female and Group 2 nationals who earn PhDs in agricultural science, economics, and other agriculture-related disciplines (including health). The Centers could assist Gender and Diversity Program work with donors to match universities and CGIAR Centers where postgraduate research for development can be undertaken and supported.

**Recommendation 6. The Consortium and the CGIAR Fund together take a more strategic approach to partnerships with other actors in the production and delivery of international public goods**

The CGIAR cannot function effectively as a component of an international public goods delivery system in the absence of robust partnerships that ensure production and scaled up application of public goods. Current ad hoc, short-term approaches to partnerships are unsustainable. The results, relationships, and requirements for strategic partnerships need to be made explicit and operationalized within a results-based performance framework.

- Within the balanced partnership model, the Panel recommends as the highest priority for partnership development in the CGIAR, that partnerships be approached as integral components of a medium-term strategy and results framework.
- The Panel recommends that the CGIAR donor community and the governments of developing countries approach the needs of Africa systemically by assuring adequate provision for institution and capacity building in the partnership among CGIAR, NARS, and advanced research institutes.
- The Panel also recommends the establishment of a separate financing facility as a contingency fund for partnership opportunities, not envisaged in the strategic framework. This would be available, for example, to meet the short-term financing needs of a NARS partnership to test a promising new technology or to gain rapid and timely access to scientific equipment available only in an advanced research institute.
- The Panel recommends a facilitated high-level dialogue with Chatham House rules among representatives of civil society organizations, the private sector, representatives
of Centers and the Consortium, and independent experts on intellectual property rights. A multistakeholder dialogue can be used to achieve greater clarity on the nexus between intellectual property rights and public agricultural research.

- The Panel recommends the CGIAR continue to apply its new policy for building partnerships with nongovernmental organizations. The systematic nature and concrete steps proposed in the policy should be applied and tested over time. The Panel accords particular importance in this regard to conducting regular three-year evaluations of CGIAR–nongovernmental organization partnerships. At least the first such evaluation should be conducted on an independent basis.

Moving forward with a balanced partnership

From the Members’ perspective, in accepting a rebalanced partnership, Members would achieve four benefits:

- First, Members would have an instrument, the Fund, to achieve the quantum advance in the funding of research in agriculture and natural resource management that climate change and the current crisis in food prices demand.
- Second, strategic allocation of pooled funds would enable a programmatic approach to investment in agricultural and natural resource management research for development.
- Third, authorities would be clarified and accountability enhanced.
- Fourth, members would be freed from management responsibilities, which would be assumed by the joint Consortium of the Centers. This would be a significant gain in time and energy. Members would be able to focus their energies on development strategy, resource allocation and oversight—matters that are more important and much more appropriate to them than micromanagement of Center network operations.

Members would accept the loss of some powers in return for gains that are more important to them. They would:

- Give up their quasi management of Center affairs.
- Face a stronger, more confident and probably more assertive network or partnership of Centers.
- Relinquish some sovereignty because financial contributions that were previously direct from individual Members to Centers would now be partly shared in the pooled Fund. But members would still exercise strategic sovereignty through their agreed resource allocation framework.

In summary, the Members would be relieved of management responsibilities and the conflicts of interest that attend them. Instead, they would have an appropriate instrument for results-based resource allocation (the Fund). The pooled Fund would enable Members to
institute a results-based framework, within which they could exercise due diligence on development “value for money” from the Centers. They would be working within a governance structure more in accord with the spirit of the Paris and Monterey Declarations, which encourage harmonization and encourage Members to focus on strategy, resource allocation, and oversight rather than on the ownership of projects and operations.

From the Centers’ perspective, in accepting the balanced partnership model, the Centers would gain certain benefits:

- The Centers would “up their game” by focusing on large regional and global challenges. In doing so, their stature and relevance would increase in the eyes of the international community.
- They would have access to a major new source of unrestricted and restricted money through a new pooled Fund with the objective of substantially increasing the total funding of the Centers and Programs within the first commitment and pledging period.
- They would enhance their comparative strategic advantage, not only by the capabilities made possible by substantial incremental funding, but also by having a single entry point and single voice in international forums. The brand and coherence of the network or partnership would be enhanced.
- They would be served by common services owned by them.
- They would have a stronger role in the joint management of programs.

But accepting the rebalanced partnership model of governance for the common good and mission would involve tradeoffs for the Centers:

- They would cede some important decisionmaking powers to the joint Consortium.
- They would accept that much of the flow of unrestricted and restricted (programmatic) funds would come through the CGIAR Fund, rather than directly from individual members, and that it would be allocated by members strategically, partly according to Center performance and program performance.
- They would take more responsibility, individually and collectively, for financial risk management, and there would be a lower probability of a bailout if a Center had serious financial difficulties.
- They would pay significant fees and levies to the joint Consortium, to cover its operations, including joint services to the Centers and administering programs. These expenditures might be partly (or mostly) compensated by transfers to the Centers of funds that previously have gone directly to pay for system management. But there might be significant incremental costs to the Centers.

In summary, authorities and responsibilities in the new model of governance would be clarified and rebalanced to the long-term benefit of all parties.
Transition arrangements

There is now a window of opportunity for the reformation of the CGIAR. The current world food price crisis demands immediate action. Therefore the Panel recommends that funding be made available to exploit existing programming and to accelerate program design to fully engage past investments and to engage cutting edge science.

If the CGIAR and the Centers decided to move to a partnership structure similar to the one outlined here, the Panel recommends an eight-month transition to bring the new structures into existence. The process would entail two six-person task forces, one led by the World Bank to propose the details of the Fund and the other led by a chairperson designated by the Centers to formulate the details for legal incorporation in a jurisdiction that it would determine in consultation with the Centers. The task forces would present their proposals to the inaugural conference for the launch of the compact.

The Panel believes that all aspects of the new governance system cannot be decided in the absence of serious discussions between the Member/donors and the Centers. In this spirit the Panel recommends an inaugural conference to reach agreement on a new reform compact for the rebalanced partnership and the requirements for its implementation.

In the future a triennial assembly of all stakeholders would be organized and co-chaired by the chairs of the Fund and the Consortium. Its purpose would be to present and seek feedback on strategies and programs and to review all matters of interest to the well-being of the CGIAR partnership. This could also seek to bring together the leaders of the leading organizations concerned with agricultural research and development, food security, and the interface between agriculture and natural resource sustainability and major international research networks.

Getting on with it

Real progress cannot come one institution at a time. The CGIAR Centers need to lift their partnership game at all levels and with the private sector and nongovernmental organizations. But they cannot reform on their own. Nor can they address global challenges without institutional supports from their global partners. The next step is for the governments responsible for the five organizations comprising the core entities of the international agriculture architecture to review the recent evaluations of the International Fund for Agriculture Development, the Food and Agriculture Organization, the World Bank, the World Food Programme, and the CGIAR to determine how these important institutions can be better supported to work more effectively within more nimble, mission-directed, and integrated international structures.
Within this broad reform agenda, the CGIAR must enhance its global leadership. Science (including that for policy and institutional innovations) will be at the heart of faster productivity growth, adaptation to climate change and the use of scarce water. The priority challenges are becoming more transnational in scope, putting a premium on regional and global collective action and on the development of international public goods.

The Panel’s main message is that change at the CGIAR is essential—and possible. Get on with it.
Notes

1 Nested frameworks from overarching strategy to Center and program strategy would guide the achievement of agreed strategic objectives. The results systems should first and foremost serve the management of the Centers to guide staff and secondly to demonstrate development impact achieved with partners. Efforts should be made to reduce reporting at each level of the system to just what is needed at the next to make decisions.

2 Governance is making sure an organization is doing the right things; management is making sure the organization is doing them right.
CHAPTER 1
INTRODUCTION

The Consultative Group on International Agricultural Research (CGIAR) was created in 1971 as an informal partnership bringing together governments, private foundations and international organizations interested in supporting agricultural research for developing countries through a small network of international agricultural research centers. The “System” (the Consultative Group and the Centers) was guided by an independent Technical Advisory Committee. Over time, the CGIAR System has grown to include 64 members, 15 research Centers and an independent Science Council. It is supported by an Executive Council, a System Office, and various standing and ad hoc committees.

The CGIAR commissions independent reviews periodically. The most recent system-wide review (the Third System Review) was completed in 1998. In 2003, the World Bank’s Operations Evaluation Department (OED) conducted a meta-evaluation of the System as part of a larger study on the World Bank’s involvement in global programs. Thus, this is the first full-fledged system-wide review of the CGIAR in 10 years.

The context in which the CGIAR operates has changed greatly since it was founded. Many issues have come to the fore, putting at risk former gains in agricultural productivity and related poverty reduction. These include greatly increased populations in some countries, loss of arable land to urbanization, increased pollution and degradation of water and soils, climate change and increasing demand for biofuels. This is aggravated by a stagnation in real terms in official development assistance (ODA) to agriculture in general and to agricultural research more specifically.

1.1 Objectives of the Independent Review

The Review had a mandate to consider the efficiency, effectiveness and sustainability of the CGIAR. It has considered the reforms of the CGIAR System over the past seven or so years and options for the future. The Review Panel was asked to “assess whether CGIAR is well positioned to address emerging food security and agriculture-related problems of developing countries.” The objectives of the Review were to take stock and assess the efficacy of the partnership, to assess the effectiveness of the CGIAR research, and to make recommendations for the changes in the CGIAR system that will improve its efficacy and effectiveness in view of emerging challenges for food security, agriculture and natural resource management of the poor.

The Terms of Reference for this evaluation cover three inter-linked topics:

1. Governance, Partnership, Management and Alignment of the CGIAR.
2. The Scientific Work of the CGIAR.
3. Partnerships (NARS, ARIs, the private sector and NGOs).

The CGIAR needs to find new roles and priorities in a fast-changing context. The Review Panel’s Terms of Reference included questions regarding the positioning of the CGIAR on the research-to-development continuum. The Review Panel assessed whether the CGIAR System remains relevant and is well positioned to make its best possible contribution to the current agricultural research needs of developing countries, including natural resource management, and, ultimately, to support food security of poor people around the world.

1.2 Scope and Limitations of the Review

The Independent Review of the CGIAR System had an appropriately broad scope, similar to the scope of the three previous comprehensive reviews of the CGIAR. It covered the impact of the CGIAR, its partnerships, and its governance and management, as set out in the Review’s Terms of Reference. The period reviewed was from the initiation of reforms in 2001 to 2006/2007 (approximately five years), although in some cases the Panel looked at longer trends.¹

The Review Panel faced some limitations. First, the time allocated for the review was short, given the breadth of the questions in the Terms of Reference.² It was also short in comparison to previous reviews and reviews of similar scope being undertaken by the international community of global programs and institutions.

Second, the review was charged with assessing impact on the basis of existing evidence, not charged with collecting new evidence. Third, a major Facilitated Change Management exercise led by the Chair of the CGIAR was being conducted simultaneously with the Review. A more usual approach would be to complete the Review first and then to design a change management exercise in light of the findings and recommendations of the Review that are accepted by the CGIAR. It was indeed a challenge to conduct the two processes simultaneously. The Change Management process rightly has captured the attention, enthusiasm and resources of the CGIAR. However, that has diminished the support to the Review that otherwise would have been available had the two activities not been undertaken concurrently. Moreover, the Chair of the Independent Review Panel was asked to serve as an advisor to the Change Steering Team, requiring a considerable amount of her time and attention. Panel members and consultants also provided support.

Lastly, the members of the Review Panel had constraints, in that they are not full-time and had other responsibilities to manage at the same time as the Review.
1.3 Methodology

The standards for an independent review have evolved since the Third System Review 10 years ago. In conducting this Review, the Panel was guided by the World Bank Independent Evaluation Group’s (IEG) guidelines for the review of global partnership programs and the OECD-Development Assistance Committee criteria for evaluations.

As with previous independent reviews, the Panel relied on existing evidence to a considerable extent and did not conduct or commission direct measurement of the impact of the CGIAR Centers and programs. The Panel gathered information from a wide variety of sources, including:

- Data collected by the CGIAR Performance Measurement System (PMS) and other information on the accountability and transparency of the System.

- Review of the extensive literature of reports previously commissioned by CGIAR or by CGIAR’s stakeholders and shareholders, and other documents relevant to the development impact of CGIAR.

- Examination of previous independent reviews, and major evaluations conducted by CGIAR Members, including the independent World Bank OED Meta-evaluation of the CGIAR.

- Evaluations of other Global Programs, including the recent independent evaluations of IFAD (2005) and FAO (2007).


- Examination of financial information in components of the CGIAR System Office and the Centers.

- Information on and recent reviews of governance and management of the CGIAR system.

- Documents on financial risk management.

- A written survey seeking the views of CGIAR stakeholders.

- Structured interviews with stakeholders and shareholders.
Visits to and/or interviews with the Co-Sponsors, the CGIAR’s administrative and coordinating units, and the CGIAR-supported Centers.

Inputs by consultants to the Panel.

Participation of the Panel Chair in the Steering Committee of the Facilitated Change Management Process.

**Visits to Centers**

Panel members visited selected Centers during the course of the Review. Unfortunately time and resource constraints made it impossible to visit all Centers.

The visits were not intended to evaluate Centers individually but rather to enable the Panel members to develop an in-depth understanding of the Centers collectively, based on a reasonably large sample, and to consult in depth with Centers on the Review questions. This was vital to a successful Review.

Center visits included interviews with the Director General, the Board Chair (when possible), senior scientists and young scientists, CGIAR member representatives where possible, NARS, and stakeholder organizations.

Key topics addressed during Center visits included: focus of the Center (strategy, scenarios); funding (restricted and unrestricted, other resource mobilization), stability profile, and financial performance; productivity of the Center (outputs); impact of the Center (outcomes); strength of partnerships (specific links within CGIAR and outside); perceptions of the value-added of the CGIAR (incremental funding, scientific priorities advice, integration of gender perspectives, Challenge Programs, and administrative support); and willingness to embrace possible reforms to the CGIAR System.

**Surveys and Interviews**

**(A) Survey of Persons Engaged with the CGIAR**

The Panel surveyed approximately 240 people who have been actively engaged with the CGIAR in some capacity since 2001. The survey was not based on a sample but rather was a survey of all persons who held certain positions in the CGIAR or the Centers during the past five years. These include Directors General of the Centers, Deputy Directors General (Research), Chairs of Center Boards, Members of the Science Council, members of the System Office professional and executive staff, Challenge Program staff, and representatives of CGIAR members. The questionnaire was developed with wide consultation and pre-tested by a small set of CGIAR Stakeholders.
The survey had an overall response rate of 85 percent. It provided the Panel with significant input from knowledgeable stakeholders of the System across a broad spectrum of issues relevant to the objectives of the Review.

(B) Interviews

Over the course of the Review, the Panel consulted with over 300 CGIAR stakeholders. All information collected during interviews has been held in the strictest of confidence. The Panel developed structured interview protocols for interviews at Centers during visits by Panel members and for interviews with partner organizations. Panel Members and Panel Secretaries also conducted in-person interviews, individually and in small groups, during meetings of ExCo, the Science Council, the Alliance, and at the AGM 2007. They also conducted telephone interviews with Directors General, Board Chairs, member representatives and other stakeholders. In addition, the Panel conducted structured telephone and electronic interviews with representatives of National Agricultural Research Institutes.

Stakeholder Consultation

The Panel conducted a Stakeholder Consultation workshop in the Philippines in September 2008. The consultation focused on testing the findings, conclusions and recommendations of the Review and, as such, covered a wide range of issues. Exit workshops such as this have proven effective in assisting stakeholders to understand the rationale behind a Review’s conclusions. Such meetings create a better understanding among key stakeholders and a greater likelihood of recommendations being correct and being adopted.

Participation at the Stakeholder Consultation was by invitation and included Members, NARS, NGOs, private sector representatives, and universities from developing countries; regional representatives; Members, ARIs, NGOs and private sector representatives from industrialized countries; and executives and staff from the Centers and Challenge Programs. The workshop was professionally facilitated. Feedback from the Stakeholder Consultation is reflected in the Panel’s final report.

1.4 The Relationship to Change Management

In April 2007, the CGIAR’s Executive Council initiated a Facilitated Change Management process as the next step in reforms that began with the recommendations of the Change Design and Management Team in April 2001. Without compromising the Review’s independence, it was agreed in Beijing that the Facilitated Change Management process would concentrate in the first half of 2008 on “strengthening the system mindset” and
“strengthening trust and empathy”, while further identifying issues to be addressed. The Change Management process would also focus on creating a new vision and strategic objectives for the CGIAR during this period, while the Review was undertaking the bulk of its work. It was further agreed in Beijing that formal change plans not already proposed and underway in the Facilitated Change Process are to take into account the Review Panel’s recommendations from this report.

During the course of the Review, the Panel shared selected outputs when they became available in discussion form, with the various Change working groups. The Chairperson of the Independent Review also actively participated in the change Steering Team as an “external advisor”. There was full communication between the Chairs of the four Change working groups and the Review Panel Chair on issues of common interest.

1.5 The Report of the Independent Review

The Panel’s Technical Report begins with an Overview of Findings and Recommendations. The body of the Technical Report is presented in 15 Chapters which, collectively, address the Review’s Terms of Reference and cover four over-riding topics as outlined in the Inception Report: the global context in which the CGIAR operates; governance of the CGIAR and its Centers; financing; and partnerships.

Chapters 2 and 3 discuss challenges to global agriculture and provide an assessment of the CGIAR’s scientific achievements. Chapter 4 describes the myriad components of the CGIAR System and their operation. It also discusses the character of the CGIAR “system” and the CGIAR’s capacity for strategic planning. Chapter 5 then provides an analysis of the international architecture for agricultural research for poverty reduction.

Chapter 6 evaluates the work of the Science Council, and Chapter 7 assesses the roles of the CGIAR’s Members and Cosponsors. In Chapter 8, the Panel reviews the Challenge Programs and the extent to which they have met the objectives set out in the 2001 Change Design and Management process. The chapter also discusses eco-regional and other system-wide programs and whether they and the Challenge Programs are effective mechanisms to optimize CGIAR science and synergies among Centers and between Centers and partners. Chapter 9 evaluates System- and Center-level gender and diversity issues.

Chapter 10 assesses the CGIAR’s and Centers’ management of intellectual property. This leads into Chapter 11, in which the Panel reviews the CGIAR’s and Centers’ partnerships, both internally and with outside organizations. In Chapter 12, the Panel analyzes how the CGIAR conducts evaluation and performance measurement, and describes how the CGIAR System can better incorporate results-based management into its operations to
improve its relevance and efficacy, as well as its ability to articulate outcomes and impacts of its work.

Chapter 13 reviews the Executive Council, the System Office, and the CGIAR’s reform efforts over the past five years. It then puts forth a governance model based on a rebalanced partnership between the Consultative Group and the Centers it supports. This is complemented by Chapter 14, which describes current and proposed resource mobilization and allocation practices. Chapter 15 gives an in-depth analysis of financing trends and financial management.
Notes

1 The CGIAR has undergone independent evaluations several times in its 36-year history. The Third System Review was completed in 1998. This was followed by a Change Design and Management process, and by a major study by the World Bank’s Operations Evaluation Department (now Independent Evaluation Group). The result of this round of studies was a period of governance reform and related initiatives starting about 2001.

2 Previous Reviews have taken much longer to complete than the timeframe for the present review. One lesson drawn from previous Reviews was that it is preferable to be realistic about the time and resources required for an adequate review, especially since such a review is commissioned by the CGIAR infrequently.

3 See comments by World Bank. (2003). *CGIAR at 31. OED*


5 http://www.worldbank.org/ieg/grpp

6 Relevant literature includes core CGIAR documents (e.g. the Charter), CGIAR/ExCo decision records, the reports of previous reviews and studies (e.g., System Office, Stripe Review of Corporate Governance of CGIAR Centers) and the general literature of agricultural research and development impact.

7 Reviews of Centers External Program Management Reviews (EPMRs) together with the external reviews of the Challenge Programs (CPs) and Independent and Eco-regional Programs (SWEPs). In addition, the evaluations of impact and other CGIAR evaluations including evaluations done by Centers to assess the impact of the CGIAR on poverty reduction.

8 Those Centers included Bioversity, ICRISAT, IFPRI, IITA, ILRI, IWMI and World Agroforestry.
CHAPTER 2
THE GLOBAL CHALLENGES FOR AGRICULTURE
IN THE 21st CENTURY

2.1 Global Food Security – Turning Full Circle

For most of the final quarter of the twentieth century and the first half decade of the 21st, agriculture did not feature as a major topic in the international political economy. A major transformation has since occurred. In December, 2007, the lead article of The Economist magazine announced “the end of cheap food” and that the 30-year period (1974-2005) of steadily falling food prices had come to a close. Four months later (April 17, 2008), the same journal examined the poverty effects of the new agricultural context under the alarmist headline “the silent tsunami”. It noted that “Usually, a food crisis is clear and localized…This crisis is different. It is occurring in many countries simultaneously…The poorest are selling their animals, tools, the tin roof over their heads – making recovery, when it comes, much harder.” During the first quarter of 2008, commodity prices reached a 10-year high. Average prices of the three basic grains (wheat, rice and maize) doubled over a 15 month period (See Table 2.1.1). Emergency policy responses in 48 countries included price controls, consumer subsidies, export restrictions and lower tariffs on food.

Table 2.1.1 Grains Prices (Source FAO Food Price Index)

<table>
<thead>
<tr>
<th></th>
<th>January 2007</th>
<th>April 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>100</td>
<td>280</td>
</tr>
<tr>
<td>Wheat</td>
<td>100</td>
<td>180</td>
</tr>
<tr>
<td>Maize</td>
<td>100</td>
<td>150</td>
</tr>
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</table>

This situation has propelled issues of agriculture, food security and poverty to the top of the global agenda. World Bank President, Robert Zoellick, has called for “a new deal of global food policy”, warning that unless this is forthcoming, including significantly increased investments, the reduction in global poverty gains of the last decade could be lost. Linking this to windfall gains from high oil prices, he proposed that sovereign wealth funds around the world allocate US$30 billion – one percent of their US$3 trillion assets – to investments for African “growth, development, and opportunity”. At the high level meeting of the Economic and Social Council in April, United Nations Secretary General Ban Ki-moon warned that “the rapidly escalating crisis of food availability around the world (had) reached emergency proportions”. President Sarkozy of France has proposed a new “Global Partnership for Food and Agriculture” which would be based on three pillars: (i) closer international coordination; (ii) a scientific think tank along the lines of the Intergovernmental Panel on Climate change made up of leading international scientists; and (iii) a new investment fund, possibly managed by the International Fund for Agricultural Development to include sovereign funds. The G8 Summit of 2008 issued a
separate communique on agriculture stating that: “We are deeply concerned that the steep rise in global food prices coupled with availability problems in a number of developing countries is threatening global food security. The negative impacts of this recent trend could push millions more back into poverty, rolling back progress made towards achieving the Millennium Development Goals. We have taken additional steps to assist those suffering from food insecurity or hunger, and today renew our commitment to address this multifaceted and structural crisis.”

The CGIAR was created in the early 1970s at a time of heightened concern about global food security, with the objective of increasing food production in the developing world. In no small part due to the success of the CGIAR, food and agricultural performance in the following decades was impressive. From 1980 to 2005, agricultural production expanded globally by an annual average of 2.2 percent per year, more than the population growth of 1.7 percent per year. This growth, driven by rapid productivity growth in developing countries, pushed down the real price of grains in world markets by about 1.8 percent per year, even as crop land per capita declined by 40 percent over the same period (Figure 2.1.1). But performance was uneven, with food production per capita falling in sub-Saharan Africa. And elsewhere success in food production has underlined the complexity of dealing with world hunger and food insecurity—some 850 million people still suffer from hunger, a figure that has stagnated in recent years.

In the 1980s and 1990s, priorities of the development community shifted away from agriculture to the goals of poverty reduction, health and environmental sustainability. Agriculture received 18 percent of Official Development Assistance (ODA) in 1979 but only 3.5 percent in 2004. Total ODA for African agriculture fell from just under $2 billion in 1981 to $1 billion in 2001. The ODA trend was mirrored in the developing countries most dependent on the sector for both economic output and livelihoods. The recent World Development Report showed an inverse relationship between public investment in agriculture and its contribution to GDP (See Figure 2.1.1). CGIAR priorities also shifted—the allocation of resources to productivity enhancement in the CGIAR fell from an average of 74 percent in 1972-75 to 34 percent in 2004-05.
Yet today’s situation is reminiscent of the 1970s. Both short-term (Box 2.1.2) and long-term factors are driving the current food crisis. The immediate requirement is for emergency responses, such as emergency aid, safety nets, and crash production programs. The even greater imperative is for timely and adequate responses that address long term critical challenges to global food supply. Sharply increased and better coordinated global investments are urgently needed to address these. A revitalized CGIAR would be uniquely well-positioned to exercise leadership and contribute to the solutions needed to the long term challenges.

Box 2.1.2: Short-Term Influences on Food Prices in 2008

The short-term explanations of high food prices refer mainly to four interconnected factors. First, world cereal stocks are at their lowest levels in three decades. This has been attributed to a structural reduction in stock levels that started in the mid-1990s following changes in the policy environment brought about by the Uruguay Round. Second, drought-induced harvests in some exporting countries such as Australia pushed crop yields in those areas well below long-term average levels. Third, many exporters in response to sharply rising food prices for domestic consumers, adopted supply-restricting policy responses such as taxes, minimum prices, quotas and outright bans on exports of staples that greatly exacerbated price shocks, especially for rice. Finally, a significant flow of funds into agricultural derivatives by investors looking for higher returns than those available from a generally depressed market for stocks is a likely contributor to price spikes in spot and futures markets. With supply response and good weather, some easing of prices is expected and is already evident in the second half of 2008.

2.2 Drivers of Global Food Demand

Aggregate demand for food is higher today than at any time during the past half century. Historically, demand growth for food has been about 1.5 percent each year, but it has now
risen to 2 percent. The principal longer-term factors driving global food demand include the following:

- Rising affluence in developing countries, especially China and India, is fueling demand growth which is forecast to be as high as 2.6 percent within a decade. Although demand growth is projected by the World Bank to slow after that, the Bank also estimates that food production will need to grow by another 50 percent by 2030 (and 85 percent for meat) to fulfill projected demand.

- Population growth has exceeded food production growth since 1984. For most of the period from the early 1950s to the mid-1980s world food output generally kept ahead of population growth. For the two decades of 1960-1980, cereal yield increases were between 3-6 percent annually; they are now in the range of 1-2 percent. Since 1984, population has been growing faster than cereal production. This did not amount to a global problem so long as most demographic growth was occurring in places where per-capita cereal consumption was low (i.e. India and China) as this reduced average level of world per-capita cereal consumption. Per-capita cereal consumption in these places is now rising very rapidly.

- A structural change in demand has been occurring and its pace is accelerating. The large populations and increasing affluence of China and India are bringing about a major shift in the global demand curve for food. Consumers in those countries are increasing their intakes of higher value foods including fish, meat, dairy, fats, fruit and vegetables, and correspondingly reducing the percentages of grains and tubers in consumption. Even in low-income countries of sub-Saharan Africa, Asia, and Latin America, the vegetable oil share of diets has risen as processed food consumption rises. Direct human consumption of wheat and rice in all non-OECD countries is projected to rise by just 0.8-1 percent annually over the next few years, but to this must be added an annual increase of 1.5 percent of feedgrains to meet the burgeoning demand for livestock products. The International Food Policy Research Institute (IFPRI) suggests that high income growth accounts for perhaps half of the recent increases in food prices.

- The push to biofuels to reduce oil dependency also seems to be an important factor, but the extent to which it accounts for the recent grains price spike is deeply contested. At the low end, the US government claims that plant-derived fuels contribute less than 3 percent to food-price rises. By contrast, the World Bank places the figure as high as 75 percent. A middle range of 30 percent has been suggested by IFPRI. The wide variations are probably due to the extent to which calculations take subsidies into account, especially in the US market where approximately $7 billion a year is spent supporting ethanol. This subsidy consumes about 20 percent of America’s corn crop – a figure that should increase under current legislation to 32 percent by 2016. In Europe, the EU has set a target of 10 per cent of its transport fuel to come from biofuels by 2020, while the US has proposed a target of 36 billion gallons of renewable fuel by 2022. Recent initiatives to scale up production of biofuels in developing countries
using cassava and palm oil, could significantly affect markets for these commodities as well.

**Figure 2.2.1: Global Trends in Food Production and Prices, 1961-2005**

![Graph showing food production, cropland, and food prices trends from 1961 to 2005.](image)

Source: Pingali and Wikke, 2007

### 2.3 Looming Challenges on the Supply Side

Rising demand is by itself not the major challenge since demand is projected to grow more slowly than over the past 20 years, although much depends on when second generation biofuels using crop wastes and other feedstocks become profitable. But rising demand, combined with severe constraints on the supply side pose major challenges to the future of food production and global food security.

**Acute Resource Constraints:** In the more densely populated parts of the world, the land frontier has essentially been exhausted. In Asia, land scarcity has become acute in most countries, and rapid urbanization is reducing the area available for agriculture. In Latin America, there is further scope for agricultural land expansion, but this will often have to come at the cost of cutting down forests and woodlands. In parts of Africa there is significant room for bringing additional land under cultivation, but this will require large investments in infrastructure, as well as in human and animal disease control measures.

Meanwhile, water needed for irrigated agriculture is increasingly scarce in most developing countries because of heightened competition from rapidly growing urban populations and industrial users. Indeed, globally, the amount of water for agriculture
may have already peaked. Irrigated food production in large areas of China, South Asia, and the Middle East and North Africa is especially threatened because ground water is being extracted at unsustainable rates. In Africa and Latin America, untapped water resources are still available for agriculture, but large investments will be needed to exploit their potential.

**Slowing of Technical Change:** Acute resource scarcity places a premium on faster productivity growth. Yet for the major cereals, yield growth has slowed sharply since the 1980s in most developing countries (Figure 2.3.1). This suggests that the easy gains that can be achieved by adopting green revolution inputs have already been realized, except in Africa. The slowdown in R&D spending in many countries (see below), combined with slow pace of uptake of new products of biotechnology due to regulatory weaknesses and consumer backlash, has raised concerns about the pace of future gains. However, the exploitable yield gaps remain high in many areas, especially the medium- to high-potential areas of Africa.

**Figure 2.3.1:** Growth of Yields of Cereals in Developing Countries is Slowing

![Graph showing growth of yields of cereals in developing countries](image)


**Uncertain Effects of Climate Change:** Global climate change has created tremendous uncertainty for agriculture, the sector most immediately impacted. In recent years, changes in precipitation patterns have made some regions wetter, but parts of southern Africa and southern Asia have become drier, with negative effects for agriculture. The combined effects of higher average temperatures, greater variability of temperature and rainfall, more frequent and intense droughts and floods, and reduced availability of water for irrigation could be devastating for agriculture in many tropical regions. The rural poor will be most affected by these developments. According to the recent report of the Intergovernmental Panel on Climate Change, one-third of the population at risk is in Africa, one-quarter in Western Asia, and about one-sixth in Latin America.25
**High Energy Prices:** Oil prices have increased by more than four times over the past five years, driven by rapidly global economic growth, led by Asia. There is little doubt that energy prices will remain high, increasing agricultural production costs (through pressure on the cost of fuel and other energy-dependent inputs such as fertilizer) and doubling the pressure on food prices—from the supply side (higher costs) and the demand side (biofuels). Sharply higher prices of fertilizers that depend on fossil energy could have far-reaching effects on developing-country agriculture, pushing down fertilizer application rates, reducing crop yields, and raising food prices, unless rapid advances are made in tapping nutrient sources that do not depend on fossil fuels, such as biological nitrogen fixation. Beyond the farm gate, costs of inputs and long distance food distribution is being affected by higher transport and refrigeration costs.

**Lagging regions.** Agricultural performance in areas with difficult agroclimatic conditions or inadequate infrastructure that constrains market access has been generally disappointing, exacerbating food insecurity and poverty. Nowhere is this challenge greater than in Africa. Although agricultural growth has accelerated in Sub-Saharan Africa, food production continues to lag. IFPRI projects a growing import gap of at least 40 million tons of cereals per year by 2030. Limited tradability because of the types of food consumed and high transactions costs of trade, add to the urgency of accelerating food production in Sub-Saharan Africa.

**Price Shocks and Vulnerability.** Changes in stockholding policies of some large countries, production shocks due to climate change, unpredictable trade policies of some exporters, and volatile oil prices all point to much greater instability in global food markets and more frequent price shocks. A major challenge is to find ways to manage shocks through production risk mitigation (better water control or drought-tolerant varieties), institutional innovations in markets (forward markets, insurance), trade policies, and efficient safety nets for the poor.

What will be the combined effect of slowing global demand for agricultural commodities and tightening supplies? Under its baseline scenario, the IFPRI IMPACTS model projects a reversal of the long-term decline in cereal prices observed in recent decades. After having declined at an average rate of 1.6 percent annually since 1980, cereal prices are projected to increase at a rate of 2.0 percent per year through 2025 from a (low) base in 2000. However, prices will fall from their current high, and if investment in the sector is stepped up to allow yields to grow by 0.4 percentage points more than in the baseline, food prices could continue to decline, benefiting poor consumers (Figure 2.3.2).
Figure 2.3.2: Long-Term Projections of World Cereal Prices

Average and projected price of cereals ($US2000/t)

Source: Rosegrant et al., 2008.

2.4 Beyond Global Food Security: New (and Old) Challenges

But even if the world is successful in restoring global food security, there are several other critical global challenges facing the sector—poverty, environmental sustainability, human health, and gender—some that have been central to the agricultural development agenda and others that are emerging (e.g., health).

2.4.1 Fighting Poverty

Over the past two decades, the world and the CGIAR have focused research and developmental efforts on reducing poverty, the first MDG. Seventy-five percent of the world’s poor live in rural areas—2.1 billion living on less than $2 a day, 900 million on less than $1 a day—and most depend on agriculture for their livelihoods. The world has made significant progress in reducing poverty, largely through progress in addressing rural poverty (from 1,040 million in 1993 to 890 million in 2003), although most of that has occurred in East Asia. However, in South Asia and Sub-Saharan Africa, the number of rural poor has continued to rise and will likely exceed the number of urban poor until 2040. In these regions, a major challenge will be to mobilize agriculture for poverty reduction. The recent World Development Report has highlighted the unique powers of agriculture in fighting poverty, and called for more and better investments in the sector.
2.4.2 Environmental Sustainability

Agriculture uses some 80 percent of the developing world’s water resources and 40 percent of its land resources, and is a major source of deforestation. Since the 2002 Earth Summit in Rio the agricultural agenda has been intricately linked to the broader agenda for environmentally sustainable development. Providing food for nine billion people in 2050 and ramping up biofuels production will further intensify pressure in several areas.

- **Soil Degradation**: Various sources suggest that globally, 5 to 10 million hectares of agricultural land are being lost annually to severe degradation with serious off-site costs such as siltation of reservoirs.\(^{30}\) Soil degradation through nutrient mining is a huge problem in Sub-Saharan Africa affecting 75 percent of the agricultural area due to the combination of shorter fallows, expansion to more fragile land driven by rapid population growth, and very low use of fertilizer. Clearly the decline of soil fertility is a large part of the reason for Sub-Saharan Africa’s low yields, so reversing it must be a high priority.

- **Pollution from Intensive Agriculture**. Agricultural intensification, especially in Asia, has resulted in major costs to the environment and health from groundwater contamination by agricultural chemicals, salinization and soil degradation from monocropping, unsustainable use of groundwater, and runoff from animal waste from intensive livestock systems. The challenge is to continue to increase productivity while reducing damage to the environment.

- **Loss of Biodiversity**. Deforestation is occurring most rapidly in the remaining tropical moist forests of the Amazon, West Africa, and parts of Southeast Asia. The expanding agricultural frontier is the leading cause of deforestation. In addition, more than half of all species exist primarily in agricultural landscapes outside protected areas, so that biodiversity can be preserved only through initiatives with and by farmers. Last but not least is the challenge of conserving the plant genetic resources related to food and agriculture. Climate change will increase the value of plant genetic resources and the urgency of conservation.

- **Climate Change**. As already discussed, agriculture is the sector most vulnerable to climate change, requiring urgent efforts to facilitate adaptation—by both agriculture and people. However, agriculture also presents major opportunities for reducing global greenhouse gas emissions through carbon sequestration, better livestock management, and reduced rates of deforestation and forest degradation. This requires progress in developing appropriate technologies as well as institutional innovations to allow small-scale farmers to tap rapidly growing carbon markets.

Agriculture’s large environmental footprint must be reduced; farming, forestry and aquatic systems made less vulnerable to climate change, and agriculture harnessed to
deliver more environmental services. The solution is not to slow agricultural development – it is to seek more productive, sustainable and resilient production systems.

2.4.3 Linking to Human Health

The challenges to agriculture are increasingly intertwined with challenges in the health sector. Because the majority of the world’s poor work in agriculture and the poor suffer disproportionately from illness and disease, taking an integrated view of agriculture and health is necessary to effectively address many development challenges.

- **Nutrition**: Lack of dietary diversity and poor diet quality lead to micronutrient malnutrition or hidden hunger, even when energy intakes are sufficient. This hidden hunger such as vitamin A and iron deficiency, can cause illness, blindness, and premature death as well as impair the cognitive development of survivors. Crop diversification and bio-fortification have great potential to meet this challenge.

- **Diseases**: Widespread illness and death from HIV/AIDS and malaria is greatly reducing agricultural productivity and devastating livelihoods. The majority of people affected by HIV work in farming, and there is tremendous scope for agricultural policy to be more HIV-responsive in supporting adjustments to labor shocks and the transmission of knowledge to orphans.

- **Health Risks from Agricultural Practices**: Many agricultural practices pose threats to the health of the rural poor. Irrigation can increase the incidence of malaria, and pesticide poisoning is estimated to cause 355,000 deaths annually. Zoonotic diseases such as avian influenza that arise from the proximity of humans and animals pose growing threats to human health. Urbanization and growing demand for perishable foods is increasing the prevalence of food borne illnesses, placing a premium on improved food safety standards throughout the food chain in developing countries.

2.4.4 Gender — Essential to Both Efficiency and Equality

Women play a major, but largely unrecognized, role as farmers, agro-processors, and traders in local agricultural markets in most countries of the world. They also play a critical role in improving household food and nutrition security and the human development of children. Yet women producers are widely disadvantaged because of their poorer access to assets and input resources such as seeds, land, labor, extension or technical support, finance or credit, as well as by the demands of domestic duties. In addition, the design of technologies rarely takes account of the special needs of women farmers and laborers. The increasing commercialization of agriculture and the growing importance of rural labor markets and migration as pathways out of poverty will only accentuate these disadvantages.
The importance of designing agricultural development programs that redress these disadvantages with the full participation of women has been widely pronounced by the development community including the recent World Development Report. However, progress in implementation has been slow at both the international level (including the CGIAR) and national levels. This is despite the clear evidence that unless gender equality and the barriers women face in agriculture are squarely addressed, it will not be possible to achieve the efficiency and productivity gains that are critical for poverty reduction and food security.

2.5  Global Challenges to Science

Increasingly, since the 1970s, this linear model of knowledge has been abandoned, initially as a consequence of changes in the industrial sector which transited to integrating research, industrial design and production with the aim of ensuring continuous innovation and improvements. Throughout the world, firms have abolished their departments of research, applied research, engineering and strategic planning and have integrated their functions fully into their production departments. This same trend is now occurring in public institutions where emphasis is assigned to research that is ‘demand-driven’ and where systems are structured for continuous innovation.

Dramatic shifts in knowledge management and knowledge practices in public institutions are not a simple matter of the public sector following the private sector lead. The characteristics of the relationship between researchers who produce knowledge and society (including policy-makers, business managers and civil society who use that knowledge) are the result of a much deeper set of changes occurring in policy-making itself and in the conduct of research. These include:

- **The speed at which knowledge is being created is unprecedented.** A universal complaint of policy-makers today is that they are faced with information overload. Knowledge has been growing at an astonishing pace. Increasingly, the products of research in the forms of science and technology have become deeply enmeshed in all aspects of human activity, to the extent that it has now become commonplace to speak of “knowledge societies” as the key to future success. Most observers agree that this has profound implications for the organization of human activities and for all aspects of social policy.

- **Networks have become the organizational basis for policy-making.** By their very nature they require the integration of inputs and actors into the process of decision-making. The commercial linkages between transnational corporations now cover manufacturing, finance, trade, and services. Strategic alliances between corporations in pre-competitive research and development, coupled with fierce competition in final-product markets, demand new corporate and national strategies. A significant shift is taking place in the organization of productive and serviced activities in the globalized
segments of the world economy. The economic unit is less the enterprise than a specific network created for a particular purpose at a particular time, which operates in large part independently of the various enterprises that established it.

- **Policy making has become more complex and difficult.** This is especially true in the public domain where an increasing number of issues interact with each other, more actors are involved, timeframes have accelerated and second order effects have become more important. There is a need to take into consideration not only domestic issues, but an important range of external factors. This is the case not only for economic and business decisions but also for social decisions. According to some observers, strictly domestic policies hardly exist any more. The policy maker, therefore, has been internationalized and must articulate a range of external and internal factors and does not have the luxury of focusing only on domestic constituencies.

- **The institutions directly involved in shaping science and research decisions have become far more numerous and diverse.** There has been a world wide “explosion” in civil society and voluntary organizations that demand “voice” in the making of such decisions. Because of this, consultation, inclusion, anticipation, foresight and strategic planning aimed at defining both priorities and sequences have acquired central importance in knowledge systems. Of direct relevance to the CGIAR is the fact that international or trans-national NGOs have become a powerful determinant of what international organizations do and are able to do.\(^\text{32}\)

These factors outline the dramatically changed context in which knowledge organizations, especially international knowledge organizations like the CGIAR, operate. Thus, the transition of the CGIAR away from its initial defining paradigm made up almost entirely of scientists with a singular focus on applying science and producing new knowledge, is reflective of much wider global shifts in knowledge systems.

There are also several global challenges that are specific to science—the closure of the scientific global commons; a growing divide between the developed world and the developing world, and within the developing world; reduced opportunities for north-south spillovers; and the rise of new actors. These challenges are particularly relevant to the CGIAR.

- **Access to New Science in an Era of Privatization:** The molecular biology revolution is accelerating the possibilities to increase productivity and address intractable issues for the benefit of poor producers and consumers. However, much of this science is driven by private, multinational firms and patenting of new tools and technologies is now the norm in developed countries. A major challenge in harnessing these technologies to benefit the poor, is to develop a new ‘global commons’ of tools and technologies as well as to find ways to provide ready access to developing countries to genes and techniques protected by intellectual property rights.
• **A Growing Divide in R&D Spending:** Largely because of the rapid increase in investment by the private sector for commercial agriculture, developed countries spend nine times the level of R&D spending in the developing world, as a share of agricultural value added. Within the developing world, there is a further divide as countries such as China, India and Brazil forge ahead in spending on R&D, while most others have stagnate or falling spending, especially in sub-Saharan Africa, where overall spending on agriculture is dismal.

• **Reduced Potential for North-South Spillovers:** Public spending in much of the developed world is focusing on environmental and food safety and quality issues. This means that spending and capacity for productivity enhancement is falling, reducing the ability of developing countries to ‘free ride’ on scientific advances in developed countries.33

• **New Market Structures:** The institutional setting for technological innovation is changing rapidly as well. With the development of markets and integrated supply chains, innovation becomes less driven by science (supply side) and more by markets (demand side). The challenge is how to link science to users both within and outside agriculture – including farmers, consumers and market agents—in an innovations systems framework.

• **New Players:** Advanced research systems in the developing world’s tropics, such as India and Brazil, could become leading sources of new technologies and knowledge for other countries and regions. Regional research organizations and networks are also playing a much greater role, especially in Africa. Civil society organizations are major actors in agricultural and rural development, some of them rivaling major donors in their global reach and spending. Finally new philanthropic actors, such as the Bill and Melinda Gates Foundation, are becoming major players in financing international agricultural research.

These changes have major implications for the way that the CGIAR organizes itself and especially for developing strategic partnerships.

2.6 **Implications for the CGIAR**

There is now good reason to believe that the current food price crisis will not only resort agriculture to a position of importance in the international political economy, but that it will also keep it there over the foreseeable future.

The problem of under-investment in agriculture has been most acute in sub-Saharan Africa where it is needed the most. The heads of African governments pledged in June
2004 under the “Maputo Declaration” to assign not less than 10 percent of fiscal outlays to agriculture. Although there has been a positive response in some countries, most continue to assign less than half that amount.

The dramatic recent changes in the global agricultural situation represent a major opportunity and indeed an obligation for the CGIAR to provide leadership. As the CGIAR itself recognizes, there has never been a better time for the CGIAR to re-assert its role and relevance and redefine its vision and strategy (CGIAR, 2008). But this cannot be ‘business as usual’. As the World Development Report notes, “the emerging global agenda for agriculture has new challenges, driven by new actors, cutting across sectors” (World Bank, 2007). Many of the challenges are interrelated, a hallmark of the new global agenda. Almost all of the issues now have environmental, poverty, and gender dimensions, and many intersect with human health. All this heightens the need for coordinated efforts across sectors and institutions.

But the institutions and mechanisms to implement and finance the global agenda were developed in the years following WWII for a very different world. All, including the CGIAR, are lagging behind in the ability to respond to today’s challenges. Chapter 5 provides a detailed discussion of the international agriculture architecture and how it can be reformed to respond to the new political and economic realities.

Three broad principles should orient the reform program.

1. Reforms of the global organization responsible for agriculture need to be conducted holistically, rather than piece by piece, in order to clearly establish comparative advantages and areas of expertise.

2. Since today’s challenges are more complex and inter-related, specialized global organizations for agriculture will have to work together much more effectively than in the past, and just as importantly, learn to work with the specialized agencies in other sectors and multi-sectoral organizations.

3. The emerging global architecture will need the ability to both respond rapidly to emergencies, such as crop and animal diseases of global significance, as well as to make sustained investments over decades to address some of the intractable challenges, such as adaptation to climate change and biotechnology for the poor.

Within this broad reform agenda, the CGIAR must enhance its global leadership role. Science (including research on policy and institutional innovations) will be at the heart of the solution to many challenges, such as faster productivity growth, adaptation to climate change, and use of scarce water. Moreover, the priority challenges are increasingly transnational in scope, putting a premium on regional and global collective action and the development and delivery of international public goods.
Notes

1 The Economist, *The End of Cheap Food*, December 8, 2007, pp. 11-12
3 Ibid. page 33.
6 Ibid.
8 Details of the Sarkozy proposals are still being worked out, but France has already pledged $100 million to establish the partnership.
9 G8 Final Communiqué, TOYAKO, Japan, July 9, 2008
12 Ibid.
15 Rising Food Prices: Drivers and Implications for Development, Chat ham House Discussion Paper, CH BP 08/02, page 4.
16 FAO (Food and Agriculture Organization of the United Nations) (2008). *Crop Prospects and Food Situation*, Rome. FAO.
18 Rising Food Prices: Drivers and Implications for Development, op. cit.
20 Ibid.
21 http://www.theguardian.co.uk/environment/2008/jul/03/biofuels,renewableenergy.
22 Ibid.
24 This section is based on an update of chapter 2 of the World Bank’s World Development Report 2008.
Chapter 2 The Global Challenges for Agriculture in the 21st Century

28 Ibid.
29 Ibid
30 Ibid
31 Ibid
CHAPTER 3
IMPACT OF CGIAR RESEARCH

3.1 Introduction

This Chapter considers the impact of CGIAR research. In a CGIAR context, impacts are long-term societal gains, often related to development indicators, such as increases in rural income, access to healthy food and its effects, and ultimately reduction in poverty. Impacts arise from research outcomes, which are quality of life improvements at the level at which development change takes place, including successful adoption of new varieties by farmers or changes in policy which affect rural livelihoods. Outcomes arise in turn from the research outputs of CGIAR Centers, their organizational goods and services, including communicated research findings, improved breeding material, other new technologies or tools, and training of agricultural scientists.

CGIAR Centers focus their efforts on the generation of outputs of international value, international public goods (IPGs), whereas impacts are achieved at a local level, however widely they are spread. Hence, Centers cannot themselves generate positive impacts, but they can make impacts more likely by creating effective partnerships with other players in the “impact pathway”, including national programs, civil society and industry, to make the best use of Center outputs. Centers can assist partners to achieve positive outcomes, for instance, by supporting pilot projects, backstopping local research efforts and providing training.

For research outputs of Centers to have impact therefore requires other players, a process of local adoption and adaptation, and considerable time. This makes it difficult to assess the impact of recent research outputs, such as those produced over the period of this review from 2001. The best that can be done with such assessment is to ask first what is the evidence that CGIAR research has had positive impacts in general, over its history? Then, the question can be asked what is the evidence that recent CGIAR research outputs and outcomes are, by comparison with past success, of a kind that will generate positive impacts in future?

Over the past decade, the CGIAR has made a substantial investment in impact assessment, beginning with the formation of the Impact Assessment and Evaluation Group and extending through the activities of its successor, the Standing Panel on Impact Assessment (SPIA) within the Science Council. SPIA has vigorously promoted the development of methods for doing ex post impact assessment, and has generated since 2001 substantial resources for addressing the two questions above.

However, impact evaluation in the CGIAR is made more complex by the changing nature of CGIAR research. In its early decades, most CGIAR research focused on crop genetic
improvement (CGI). More recently, and in particular with the inclusion of new Centers in the 1990s, other research areas have grown in importance, particularly natural resource management (NRM) research and policy-oriented research. Impact assessment in the CGIAR, focusing on consequences of older research, has naturally a strong CGI bias. The World Bank Meta-Evaluation of the CGIAR\(^1\) explicitly focused its assessment of CGIAR research impact on CGI research (and some specific pest management research) and noted that NRM research and policy-oriented research “boast some notable accomplishments, but on the whole their impacts remain largely un-evaluated.” Thus, evidence of positive impact of CGI sent a clear message about its value, but a lack of evidence of impact for other research areas sent no clear message, due to a dearth of impact studies.

In the years following the World Bank Meta-Evaluation, SPIA has made a concerted effort to address this imbalance, undertaking and collecting analyses of impact of NRM research and policy-oriented research, and initiating impact studies in other areas, including capacity building and participatory research.

There is thus a large and growing body of work assessing impacts of a wide variety of CGIAR research using state-of-the-art evaluation techniques. However, for some types of research – particularly those focusing on knowledge-based innovations, such as research on policy and capacity building – the “state-of-the-art” is not as well developed as might be desired. This is due to extremely formidable challenges in isolating lines of causality, attributing impacts to various participants in the research process, developing meaningful counterfactuals, and even in establishing what are meaningful quantitative measures of impact. For this reason, some of the analyses surveyed below are of a more qualitative nature, focusing mainly on research outputs (such as publications counts or numbers of individuals trained) or research outcomes (such as citations counts or perceptions of influence gained through interviews of stakeholders). Use of outcomes and outputs will be of particular importance when the Panel considers recent research, the impact of which has not yet been realized.

In addition to a review of CGIAR research impact based on published evidence, this Chapter will also examine the views of CGIAR stakeholders on where its research is most effective, and assessment of recent CGIAR research outputs, outcomes and impacts as reported in External Program and Management Reviews.

**A Review of Recent Published Evidence**

This review will consider first work done in recent years on the global impact of CGIAR research. Then it will consider in turn three major CGIAR research areas: CGI, NRM and policy-oriented research, and finally the evidence for the impact of CGIAR research on poverty reduction.
Global and Regional Analyses

The Standing Panel on Impact Assessment (SPIA) has commissioned three studies over the past five years that have quantified the impacts of the CGIAR at a global or regional level. All of these studies have found that the benefits from past investments in CGIAR research activities have exceeded the costs of that research – in most cases by a large margin. This is an important benchmark, albeit one that needs to be coupled with impacts analyses of the specific research areas (e.g., crop genetic improvement, natural resource management, policy) in order to address questions of immediate interest to most donors.

System-Wide Analysis

Raitzer (2003)² provides the only comprehensive assessment of the relative benefits and costs of CGIAR research investments over the System’s lifetime. This meta-analysis reviewed all available ex post impact assessments found in peer-reviewed journal articles, book chapters and Center publications to come up with estimates of the total benefits attributable to the CGIAR. Only studies that were published after 1989, covered middle- or low-income countries, and generated total benefits exceeding $50 million were considered. A rating scale was developed – based on the transparency of analytical methods, the extent to which causality was demonstrated, plausibility of counterfactuals, and degree to which estimated impacts were projected beyond the time frame analyzed – to establish a range of estimated benefits. Benefits scenarios ranging from the most conservative (”substantially demonstrated and empirically attributed”) to least conservative (“plausible, extrapolated to 2011”). For each of these five scenarios, benefits were then compared to total System-wide expenditures ($7.1 billion in 1990 dollars) dating back to 1960.³
Figure 3.1.1: Aggregate Benefit-Cost Ratios of CGIAR Research under Different Scenarios of Study Selection

![Benefit-Cost Ratios](image)


Figure 3.1.1 summarizes the main finding of the meta-analysis. Estimated System-wide benefits ranged from nearly $14 billion to over $120 billion. The benefit-cost ratios suggest that investments in the CGIAR have paid for themselves by a wide margin: Even by the most conservative criterion, overall benefits attributable to CGIAR research were roughly double the costs of that research.

Of note is the fact that the meta-analysis included only existing impact assessments. The very small number of extant impact assessments of natural resource management and policy-oriented research means that the true benefits of CGIAR research were understated, insofar as evidence presented later suggests that this research also had positive impact. Coupled with the fact that all System-wide expenditures were considered, the reported benefit-cost ratios were similarly understated.

It is interesting to note that a very high proportion of these benefits were associated with just a few of the CGIAR’s many programs. Roughly half (47 percent) of total benefits were attributed to rice breeding, and an additional 31 percent were attributed to breeding of spring bread wheat. Bio-control research that resulted in reductions in crop damage from the cassava mealybug accounted for most of the remaining total benefits (15 percent).

**Regional Analysis**

Two regional studies, on sub-Saharan Africa and South Asia, have been made in recent years which reveal very different levels of impact of CGIAR research. No such study has
been made for Latin America, although there are a number of specific studies which show substantial impact, for instance in the uptake of rice\textsuperscript{5} and maize\textsuperscript{6} varieties.

**Sub-Saharan Africa**

Since its founding in 1971, the CGIAR has invested approximately $4.3 billion in sub-Saharan Africa.\textsuperscript{7} This represents 41 percent of total CGIAR expenditures, the largest share allocated to any geographical region. Coupled with the continent’s relative lack of success in achieving agricultural development and poverty alleviation goals, the scale of resources devoted to sub-Saharan Africa (SSA) has inevitably raised questions regarding the returns on those investments. For this reason, in 2005 the SPIA commissioned a regional study to assess whether or not documented benefits from these investments have exceeded their costs.

Following similar methods to those described for the System-wide evaluation, Maredia and Raitzer (2006)\textsuperscript{8} undertook a meta-analysis of 22 impact assessment studies conducted in SSA. The final set of studies considered was culled from a much larger group of 367 studies that were initially reviewed. Primary criteria for inclusion of a study in the meta-analysis included a sufficiently large geographic scale of adoption (eliminating a large number of small-scale adoption studies); quantification of research benefits; and having undergone a peer review. Nearly all of the studies that emerged from this screening process evaluated either crop genetic improvement or biological control technologies. Roughly two-thirds of these were conducted since 2001 (the earliest dates to 1994). Different estimates of benefits were calculated based on varying levels of conservatism, as well as whether or not ex ante projections were considered.
Figure 3.1.2: Comparison of Calculated Costs and Estimated Benefits of Joint CGIAR-NARS Investments in Sub-Saharan Africa

![Comparison of Calculated Costs and Estimated Benefits of Joint CGIAR-NARS Investments in Sub-Saharan Africa](image)

Source: Maredia and Raitzer (2006)

Figure 3.1.2 presents the key findings. Benefits exceeded costs for all scenarios that included *ex ante* projections beyond the study period, with benefit-cost ratios ranging from 1.12 to 1.64. When only *ex post* benefits were considered, benefits and costs were much more evenly balanced; for the most conservative scenario, costs slightly outweighed benefits. The authors point out that many studies considered only one year of research benefits, even though such benefits would almost certainly extend for a number of years. Yet even if benefit-cost ratios rise to the level of the least conservative scenarios, they would have been well below those found in the System-wide meta-analysis. Hence, it would appear that while benefits from CGIAR investments in SSA have almost certainly exceeded their costs, the returns to research investment in SSA have been considerably lower than in other parts of the world.

The geographic scale of measured impacts is also relatively small. As of the end of the 20th Century only about 11 million hectares (out of about 100 million hectares) were planted to CGIAR-derived improved germplasm in SSA. And beyond improved germplasm and biological control, adoption of specific CGIAR technology products is fairly small-scale (in the tens of thousands of hectares).

Finally, the distribution of benefits from CGIAR research is noteworthy (Figure 3.2.3). Biological control activities – particularly related to the cassava mealybug – account for roughly 80 percent of documented benefits, with crop genetic improvement accounting for nearly all of the remainder. This is roughly the reverse of the what has been found for the System as whole, a finding that is squarely in line with conventional wisdom that CGI has been less successful in Africa than elsewhere across the globe.
South Asia

Hazell\(^\text{12}\) recently undertook a critical review of agricultural investments by the CGIAR and its partners in South Asia in the post-Green Revolution period (i.e., since the early 1980s). The study takes a markedly less structured approach to impact assessment than the two meta-analyses just described, reviewing existing peer-reviewed studies of productivity, social, environmental, and policy impacts.

A large body of evidence indicates that agricultural research in South Asia has been instrumental in maintaining impressive rates of agricultural productivity growth in the region since the Green Revolution. These productivity improvements have also yielded substantial indirect impacts on food security and poverty alleviation via price effects. Hazell finds that economic returns to these research investments have been consistently higher than national discount rates, and also that there is little evidence that these rates of return have declined over time. CGIAR Centers have made particularly impressive contributions to overall well-being via crop genetic improvement (CGI). Based on existing impact assessments, Hazell finds that average annual benefits of over $1 billion from CGI work, far in excess of the estimated $65 million of annual expenditures of the CGIAR in South Asia. A survey of specific commodity and country studies further supports substantial rates of return to CGIAR crop improvement research. Many of these studies tend to be rather dated, however.

Alternative approaches to agricultural development such as organic farming and low external input technologies are found to not be viable in the more favored agro-ecological

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Figure 3.1.3: Documented Benefits from CGIAR Research in Sub-Saharan Africa

Source: Maredia and Raitzer (2006)\(^\text{11}\)
areas, but are more promising in less favored areas where natural resource and crop management regimes are more central to the success of agricultural development strategies vis-à-vis seed varietal adoption. Additionally, Hazell does find evidence of significant net benefits arising from work on efficient water and fertilizer use, on integrated pest management, and on zero tillage.

Finally, Hazell finds that there is a dearth of impact studies linking agricultural research investments to environmental or poverty outcomes. While assertions that agricultural intensification strategies have had undesirable environmental impacts are commonplace, there are few empirical studies to quantify these impacts. Likewise, there is little in the way of impact studies that include environmental costs and benefits or poverty reduction in measures of rates of return to research investments.

3.1.1 Crop Genetic Improvement Research

Crop genetic improvement (CGI) has historically been the bread and butter of the CGIAR System. Improved germplasm for use by national programs, either for direct release or as parent materials is a classic international public good that in the early years of the CGIAR demonstrated high spillovers across regions and countries for wheat and rice. Nonetheless, over time CGI has received a sharply declining share of the CGIAR resources, estimated at only 16 percent by 2005.\(^{13}\)

Since the 1980s impacts of CGI have been fairly consistently tracked at the global level by IRRI and CIMMYT for rice and wheat, respectively. A number of studies have analyzed use of CGIAR germplasm in released varieties, yield impacts, and global economic benefits. These have consistently found high rates of return to the CGIAR investment in these crops – echoing the findings of the meta-analysis of total (System-wide) benefits and costs noted above.\(^{14}\) This is not surprising, given the broad geographic scale of the diffusion of improved varieties. That the benefits have been so well-chronicled reflects the relatively straightforward nature of quantifying benefits associated with productivity increases and attributing those benefits to specific CGIAR research investments. In addition, methods for evaluation of impacts of CGI are well established in the literature, notwithstanding some questions of partitioning benefits between the CGIAR and national Systems.\(^{15}\)

Comprehensive Global Assessments of CGI

The first comprehensive global evaluation of the impacts of the CGIAR in CGI was undertaken by SPIA around 2000. This study covered research carried out on 10 crops at 8 Centers (CIMMYT, CIAT, CIP, IITA, WARDA, ICARDA, ICRISAT, and IRRI) over the period 1965-1998.\(^{16}\) Results are summarized in Table 3.1.1 and Table 3.1.2.
Table 3.1.1: CGIAR Contribution to Adoption of Modern Varieties and Yield Growth in Developing Countries, 1965-1998

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>120</td>
<td>2188</td>
<td>0.82</td>
<td>0.32</td>
<td>0.64</td>
<td>0.96</td>
<td>0.52-0.62</td>
</tr>
<tr>
<td>Rice</td>
<td>150</td>
<td>1484</td>
<td>0.64</td>
<td>0.29</td>
<td>0.58</td>
<td>0.79</td>
<td>0.33-0.37</td>
</tr>
<tr>
<td>Maize</td>
<td>97</td>
<td>1494</td>
<td>0.87</td>
<td>0.23</td>
<td>0.55</td>
<td>0.67</td>
<td>0.19-0.20</td>
</tr>
<tr>
<td>Sorghum</td>
<td>39</td>
<td>363</td>
<td>0.44</td>
<td>0.22</td>
<td>0.38</td>
<td>0.50</td>
<td>0.19-0.20</td>
</tr>
<tr>
<td>Millet</td>
<td>36</td>
<td>123</td>
<td>0.44</td>
<td>0.27</td>
<td>0.85</td>
<td>0.57</td>
<td>0.51-0.55</td>
</tr>
<tr>
<td>Barley</td>
<td>20</td>
<td>105</td>
<td>0.49</td>
<td>0.50</td>
<td>0.80</td>
<td>0.49</td>
<td>0.24-0.28</td>
</tr>
<tr>
<td>Lentils</td>
<td>3</td>
<td>49</td>
<td>0.23</td>
<td>0.70</td>
<td>0.90</td>
<td>0.28</td>
<td>0.11-0.14</td>
</tr>
<tr>
<td>Beans</td>
<td>23</td>
<td>642</td>
<td>0.18</td>
<td>0.75</td>
<td>0.90</td>
<td>0.21</td>
<td>0.09-0.13</td>
</tr>
<tr>
<td>Cassava</td>
<td>17</td>
<td>252</td>
<td>0.15</td>
<td>0.74</td>
<td>0.93</td>
<td>0.22</td>
<td>0.03-0.05</td>
</tr>
<tr>
<td>Potatoes</td>
<td>9</td>
<td>458</td>
<td>0.88</td>
<td>0.08</td>
<td>0.17</td>
<td>0.74</td>
<td>0.09-0.10</td>
</tr>
<tr>
<td>All</td>
<td>535</td>
<td>7246</td>
<td>0.65</td>
<td>0.30</td>
<td>0.60</td>
<td>0.72</td>
<td>0.25-0.28</td>
</tr>
</tbody>
</table>

Source: Evenson (2003a, 2003b).\(^{17}\) Area and area shares under MVs computed from Evenson (2003a) and 1998 FAOSTAT area data.

Table 3.1.2: CGIAR Contribution to Adoption of Modern Varieties and Yield Growth (All Crops) by Region, 1965-1998

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>57</td>
<td>3146</td>
<td>0.51</td>
<td>0.28</td>
<td>0.55</td>
<td>0.66</td>
<td>0.35-0.39</td>
</tr>
<tr>
<td>Asia</td>
<td>337</td>
<td>2229</td>
<td>0.83</td>
<td>0.26</td>
<td>0.57</td>
<td>0.88</td>
<td>0.35-0.39</td>
</tr>
<tr>
<td>MENA</td>
<td>49</td>
<td>715</td>
<td>0.56</td>
<td>0.50</td>
<td>0.81</td>
<td>0.69</td>
<td>0.33-0.39</td>
</tr>
<tr>
<td>SS Africa</td>
<td>92</td>
<td>1157</td>
<td>0.23</td>
<td>0.38</td>
<td>0.62</td>
<td>0.28</td>
<td>0.11-0.13</td>
</tr>
<tr>
<td>All</td>
<td>535</td>
<td>7246</td>
<td>0.65</td>
<td>0.30</td>
<td>0.60</td>
<td>0.72</td>
<td>0.25-0.33</td>
</tr>
</tbody>
</table>

Source: Evenson (2003a, 2003b).\(^{18}\) Area and area shares under MVs computed from Evenson (2003a) and 1998 FAOSTAT area data.

The impact of CGI generally, and the central role of the CGIAR specifically, is clear for almost all crops. As expected, impacts have been greatest in rice, wheat, and maize in terms of both area influenced and adoption. For these three crops, CGI has had the largest impacts on yield growth, contributing from 0.7-1.0 percent annually. However, impacts for ‘orphan’ crops – i.e., crops other than rice, wheat and maize – accelerated toward the end of the period. The use of CGIAR germplasm products has been even higher in released...
varieties of those crops (although areas under cultivation remain comparatively lower globally). Potatoes are the only crop where CGIAR germplasm plays a minor role.

Overall, 65 percent of the area of the 10 food crops listed in Table 3.1.1 is planted with improved varieties. Sixty percent of this area is sown to varieties with CGIAR ancestry, and half of these are derived from crosses made at a CGIAR Center (i.e., direct releases by national Systems).

Among regions, impacts have been highest in Asia (both in relative and absolute terms) and lowest in Africa. This partly reflects the distribution of crops between the regions – orphan crops are more important in Africa. But even for the same crop, impacts have generally been lower in Africa. This reflects the late start to breeding work in that region. For example, CIMMYT established its first serious maize breeding program for Africa (in Harare) in the late 1980s.

The overall benefits of CGIAR’s contribution to CGI are extraordinarily large – in the billions of dollars. Most of these benefits are produced by the three main cereals. Raitzer summarizes average annual benefits for CGIAR research for spring bread wheat, rice (Asia only), and maize (CIMMYT only) of $2.5, $10.8 and $0.6-0.8 billion, respectively. Evenson and Gollin estimated rates of return to the CGIAR’s investment in CGI research ranging from 39 percent in Latin America to over 100 percent in Asia and MENA.

Using a global model of food supply and demand, Evenson and Rosegrant also estimated the counterfactual of what would have happened to world food production without CGIAR contributions to CGI:

- World food production would have been 4–5 percent lower and developing countries would have produced 7–8 percent less
- World grain prices would have been 18–21 percent higher — adversely affecting poor consumers
- Area planted to crops would have been significantly higher for all food crops, as cultivated area in developing countries would have expanded by 11 to 13 million hectares (and 5 to 6 million in industrialized countries), at the expense of primary forests and fragile lands with high biodiversity
- In developing countries, per capita food consumption would have been 5 percent lower on average, and up to 7 percent lower in the poorest regions
- Some 13–15 million more children would have been malnourished, predominantly in South Asia, where incidence of hunger is highest.

An important question for this review is whether there is evidence that historical benefits from CGI have been maintained in the 21st century. Answering this question is constrained by the paucity of global evidence since the Evenson-Gollin study was completed. At a global and regional level, CIMMYT continued conducting impact studies up to 2005 for...
wheat (with data ending in 2002). These indicated similar if not higher benefits (Table 3.1.3). In terms of the contribution of new research, local studies on CGI outputs, outcomes and impacts, to be discussed below, will help to address this question.

Table 3.1.3: Estimates of Economic Benefits to International Wheat Breeding Research

<table>
<thead>
<tr>
<th>Study</th>
<th>Period covered</th>
<th>Benefits from all breeding</th>
<th>BenefitsAttributed to CIMMYT-National Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Byerlee and Traxler (1996)(^{23})</td>
<td>1966-90</td>
<td>$3.0 b per year&lt;br&gt;Internal rate of return of 53%</td>
<td>$1.5 b per year</td>
</tr>
<tr>
<td>Heisey et al. (2002)(^{24}): mid-range estimate</td>
<td>1966-97</td>
<td>$2.4 b per year</td>
<td>$1.1 b per year</td>
</tr>
<tr>
<td>Lantican et al.: (2005)(^{25}): mid-range estimate</td>
<td>1988-2002</td>
<td>$3.4-4.8 b per year</td>
<td>$1.0 to 1.8 b per year</td>
</tr>
<tr>
<td>Marasas et al.: (2004)(^{26}): leaf rust resistance only</td>
<td>1973-2007</td>
<td>$5.4 b net present value</td>
<td></td>
</tr>
<tr>
<td>Evenson and Rosegrant (2003)(^{27})</td>
<td>1965-2000</td>
<td>With no breeding research:&lt;br&gt;- 9-14% reduction in output&lt;br&gt;- 29-61% increase in price</td>
<td>With no CGIAR:&lt;br&gt;- 5-6% reduction in output&lt;br&gt;- 19-22% increase in price</td>
</tr>
</tbody>
</table>

The regional meta-evaluations of Maredia and Raitzer\(^{28}\) and Hazell\(^{29}\) suggest that CGI has been an important part of the overall benefits of CGIAR research in Africa and South Asia. These studies also reinforce the finding that CGI attributable to CGIAR research has yielded greater benefits in Asia vis-à-vis Africa. In India, Fan et al. (2007)\(^{30}\) attributes between 12 percent and 64 percent of the estimated $3.6 billion gain from rice improvement work in 2000 to IRRI. By contrast, only 11 percent of Africa’s crop area is estimated to be sown to improved varieties linked to CGIAR research, with correspondingly much lower benefits.\(^{31}\)

Local and Crop-Specific CGI Studies

Other studies at the local level point to progress in other crops and environments. ICRISAT has achieve successes with chickpeas in India, including in some quite poor and marginal environments.\(^{32}\) The net present value of the investment in the genetically improved dual-purpose cowpea research and extension in West Africa over 20 years was estimated in the range of $299 million to $1,085 million.\(^{33}\) Depending on different assumptions, internal rates of return between 50-103 percent and a benefit-cost ratio ranging from 32 and 127 were estimated. Deb et al.\(^{34}\) chronicle substantial geographic spillovers throughout Africa of ICRISAT sorghum varieties developed with Indian NARS. And a series of recently completed adoption studies estimates that new varieties of the common bean (\textit{Phaseolus vulgaris}) developed by CIAT have been adopted on about half of the total bean area in East, Central and Southern Africa, encompassing some 5 million households and reaching 35 million people over a period of 17 years.
Box 3.1.4: CIAT Research on Beans – An African Success Story of Crop Genetic Improvement

The common bean (Phaseolus vulgaris) is a major staple food crop of Eastern and Southern Africa, occupying nearly five million hectares, and providing 38 percent of dietary protein. Beans also diversify farm production against risks and fix nitrogen for other crops in the rotation, such as maize—especially important to farmers since chemical fertilizers are expensive or not available.

Since the 1980s, CIAT has worked with a wide range of partners (public, private and non-governmental) to improve bean production and dissemination. This has been formalized into the Pan-African Bean Research Alliance (PABRA) whose goal is to enhance the food security, income and health of resource-poor farmers by improving bean varieties, producing and disseminating seed, sharing information and training extensionists and researchers.

Through the mid-1980s national researchers were severely constrained in access to germplasm of beans, a crop native to Latin America. Since the late 1980s, however, CIAT and its partners have released and disseminated about 200 improved beans in 18 countries. A large number of crop management technologies also accompanied the varieties. A series of recently completed adoption studies estimates that the new varieties have been adopted on about half of the total bean area in East, Central and Southern Africa, encompassing some 5 million households and reaching 35 million people over a period of 17 years. Higher yields, strong market demand and improved disease resistance, especially to Bean Root Rot, facilitated rapid adoption. In some countries, poor or very poor members of the community were as likely to adopt the new varieties as better off farmers. Many adopters are women, who have seen their incomes rise substantially. However, unlike varieties which spread through local markets, adoption of improved practices to counter pests, diseases and poor soils, has been more limited, reaching 1-12 percent of farmers by 2005.

Bean research and development has brought substantial economic returns. In Rwanda, where climbing beans are especially important, adopters have achieved a significantly higher increase in bean income of 73 percent compared to non-adopters. In Tanzania the internal rate of return to research investments was estimated at 60 percent over the 20-year period (1985 to 2005).

In marginal regions with low and uncertain rainfall, participatory approaches that directly involve farmers in varietal breeding and selection are also yielding positive impacts. Between 1997 and 2004, ICARDA’s Barley Research Program in Syria transformed its operation from 8,000 plots planted and evaluated on the research station to 8,000 plots planted in farmers’ fields and evaluated by farmers. Participatory plant breeding and varietal selection speeds varietal development and dissemination to 5–7 years, half the 10–15 years in a conventional plant-breeding program. However, impacts in terms of farmers’ adoption has been modest to date.

Participatory variety selection (PVS) has been used for over ten years for selection of so-called New Rice for Africa (NERICA) upland rice varieties in Africa, especially with participation of women farmers. NERICA lines have been tested in 31 countries, with 16 lines released in 15 countries, and adoption on about 200,000 ha.

Ex-ante impact studies have favorably evaluated NERICA; but except in Guinea, adoption of NERICA has been slow. PVS has been important in exposing farmers to the new varieties—in Cote D’Ivoire only 4 percent of all farmers have adopted but of those farmers...
exposed to the varieties, 38 percent have adopted. Initial assessments had suggested high yield gains from NERICA would facilitate farmer-to-farmer transfers of seed and knowledge – as has been demonstrated in many areas, including many marginal areas of Asia. Later assessments have found much more modest yield gains, however, suggesting that an intensive and possibly costly program of PVS would be needed over many years to scale up adoption of NERICAs.

**Yield Stability**

Yield stability is important for all farmers, but especially for poor farmers whose food security and livelihood are vulnerable to pest and disease outbreaks, droughts, and other stresses. While early studies suggested that yields of improved varieties may be more variable than those they replaced, recent evidence suggests that later generations of improved varieties have stabilized yields. For example, Gollin concluded that the variability of maize and wheat yields measured by the coefficient of variation around trends over the past 40 years has declined in developing countries. This decline is statistically associated with the spread of improved varieties, even after controlling for more irrigation and other inputs. The annual value of benefits from improved yield stability in maize and wheat alone is estimated at $149 and $143 million, respectively – more than the total annual spending on maize- and wheat-breeding research in the developing world.

Yield stability of improved varieties largely reflects long-standing efforts in breeding for disease and pest resistance. A third to a half of current R&D investments in crop breeding within the CGIAR may be for varietal maintenance. In the only study to have attempted to capture this ‘hidden impact’ of CGI, Marassas estimates that CIMMYT’s work on maintaining leaf rust resistance alone has generated $5.4 billion in net present value for the period, 1973-2007.

Since large areas of major food crops are now planted each year in relatively few improved varieties, genetic uniformity can make crops vulnerable to major yield losses. There is some evidence that genetic uniformity increases yield risk, even though it can also produce higher yields. In recent decades the world has largely avoided major disasters from genetic uniformity, in part because more frequent turnover of varieties has brought new sources of resistance.

However, the emergence of a new race of stem rust in wheat after over 50 years has found CIMMYT, ICARDA and their partners scrambling to find and release a new generation of resistant varieties. Likewise IITA has successfully tackled a severe outbreak of cassava mosaic disease in western Kenya via rapid identification and release of resistant varieties. Research in developing varieties that perform well under drought, heat, flood and salinity is particularly relevant to threats posed by climate change. Progress has been generally slower than for disease and pest resistance. After more than 30 years of research to
produce drought-tolerant maize varieties and hybrids, CIMMYT is now seeing results in eastern and southern Africa. Evaluated against existing hybrids, the new ones yield 20 percent more on average under drought conditions.\textsuperscript{45} Similarly, recent evidence points to significant yield gains in breeding wheat for drought and heat-stressed environments.\textsuperscript{46} New varieties of rice that survive flooding have also been identified.\textsuperscript{47}

**Genetic Improvement of Fish**

WorldFish (ICLARM) has developed genetically improved strains of Nile tilapia for on-farm production and extended these to farmers in six Asian countries, including Bangladesh. An assessment of on-farm trials by Deb and Dey\textsuperscript{48} shows yield gains of 78 percent in Bangladesh achieved without any increase in production costs. Using economic surplus methods, Deb and Dey\textsuperscript{49} quantified the benefits from and costs of research and dissemination by WorldFish and its partners in all six countries and obtained an internal rate of return of 70 percent.

**Biofortification**

Although not strictly impact assessment, recent evaluation of biofortified crops is interesting in that it is one of the first examples within the CGIAR of using experimental approaches to evaluate interventions – specifically, comparison of a biofortified treatment versus a conventional variety in randomly selected households.

Quality protein maize (QPM), which is now grown on about 600,000 hectares, has been subject to a number of such evaluations – although none without methodological problems. In a meta-analysis of 8 such studies, Gunaratna\textsuperscript{50} found an average effect of QPM on children’s rate of height gain of 7 percent and on weight of 9 percent. A recent study at two sites in Ethiopia found mixed results. Significant height and weight gains (21 percent and 26 percent, respectively) were found at one site; but at another site no significant anthropometric effects were found.\textsuperscript{51} In Mozambique, 850 households participated in an experiment with orange-fleshed sweet potatoes from CIP. Significantly increased intake of vitamin A was measured among young children living in households receiving the orange-fleshed treatment combined with extension advice on nutrition.\textsuperscript{52}

These studies are not in a strict sense impact studies, since they do not consider aggregate adoption and long run use. Still, this type of work is likely to accelerate with the scaling up of biofortification research under the HarvestPlus program. \textit{Ex ante} impact work is also underway—for example, the evaluation of the potential impacts on DALYs (Disability Adjusted Life Years), of Vitamin A rice in India.\textsuperscript{53}
Summary Assessment

Crop genetic improvement has long been the staple activity of the CGIAR, one whose net benefits have been very large and very well-chronicled. Overall, the available evidence does not indicate a slowdown in the benefits of CGIAR efforts in CGI in recent years, even with tighter funding. Recent research in a range of crops, both cereals and non-cereals, and traits (e.g., drought resistance and nutritional content) are generating outputs and outcomes which are very promising with respect to potential future impact. However, given the long delays between initial funding and the development of such CGI products, continued funding for CGI research is an issue. Between the 1990s and the present, research to increase productivity has declined in real terms and as a percentage of CGIAR research expenditure (Section 4.2).

Another concern is the paucity of evaluative evidence on the adoption and impacts of some promising CGI outputs for which diffusion appears poised to “take off” (e.g., NERICAs, bio-fortified products like QPM); while other successes like improved chickpeas and cowpeas have been found to produce impressive gains in local and regional analyses, but have yet to be comprehensively evaluated in the quantitatively rigorous way that other crops were in the landmark Evenson-Gollin volume. Thus, there is a continuing need for the CGIAR Centers and/or SPIA to regularly update global assessments of the impacts for all crops (e.g., once every five years).

3.1.2 Natural Resource Management Research

Natural resource management (NRM) research within the CGIAR has evolved substantially over time. In the 1960s and 1970s NRM research focused mainly on agronomic issues such as efficient use of nutrients and fertilizers, pesticide use, and water distribution and management. In the late 1970s and 1980s the NRM research agenda took on more of a farming systems perspective and emphasized farmer participatory methods. Productivity-related work broadened to include whole farm systems (as opposed to crop-specific impacts) and the focus of much water management research shifted from the farm-level to the watershed- or district-level.54

The decision in 1990 to expand the CGIAR to include four new Centers with mandates in forestry (CIFOR), agroforestry (ICRAF), water management (IIMI), and fisheries (ICLARM) marked a turning point in the position of NRM research within the System. Investments in those four Centers grew steadily throughout the 1990s and into the 21st Century – largely at the expense of commodity and eco-regional Centers with a stronger productivity-enhancement orientation (Kelley and Gregersen 2005).55 This was also the case for allocation resources to NRM research programs vis-à-vis other programs within the other Centers.
Analysis of CGIAR NRM Research Projects

While expenditure in NRM research has increased in real and percentage terms since the 1990s (Section 4.2; see Table 4.2.6), there have been persistent concerns raised about the dearth of studies assessing the impact NRM research, most notably, in the finding that NRM research is “under-evaluated” by the World Bank’s 2003 meta-evaluation of the CGIAR.56

In response to this particular critique – and to increasing requests for evidence of payoffs to NRM research by donors – SPIA commissioned a set of seven case studies that were recently published in book form.57 All of the seven research projects assessed were initiated in the mid-1980s or early 1990s. At the time of analysis, 5 to 10 years had elapsed since the research’s conclusion – time enough, so it was judged, to make inferences about likely diffusion paths needed for meaningful ex post analysis. Five of the seven case studies were micro-level, commodity-oriented projects whose aggregate impacts were estimated from observed farm-level impacts and projected diffusion paths. The other two case studies (conducted by CIFOR and IWMI) focused on macro-level research geared toward informing NRM policy at the regional or national level.

Table 3.1.5: Natural Resource Management Resource Impact Studies

<table>
<thead>
<tr>
<th>Center (Timing)</th>
<th>Location (Scale)</th>
<th>Project Type</th>
<th>Investment</th>
<th>Qualitative Impacts</th>
<th>Quantitative Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIAT (1993-2004)</td>
<td>Thailand Vietnam (A: 8 villages)</td>
<td>Cassava productivity enhancement, soil conservation, farmer participatory research</td>
<td>$4.0 million</td>
<td>Knowledge, institutional learning</td>
<td>2802 additional tons of cassava per village IRR = 34-41%</td>
</tr>
<tr>
<td>CIFOR (1994-1999)</td>
<td>Global (P: 45 million ha)</td>
<td>Criteria and indicators of sustainable forest management in forest management</td>
<td>$3.3 million</td>
<td>Improved quality and quantity of forest certification</td>
<td>Not reported (upstream influence)</td>
</tr>
<tr>
<td>CIMMYT (1990-ongoing)</td>
<td>India (A: 0.82 million ha, P: 3.43 million ha)</td>
<td>Zero-tillage in rice-wheat systems</td>
<td>$3.5 million</td>
<td>Conservation of water and energy resources, soil quality improvement</td>
<td>NPV = $94-164 million 39 &lt; b/c &lt; 68 IRR = 57-66%</td>
</tr>
<tr>
<td>ICRAF (1986-2002)</td>
<td>Zambia (A: 77,000 farmers)</td>
<td>Tree fallows in maize</td>
<td>~ $3.5 million</td>
<td>Carbon sequestration, risk reduction, reduced soil erosion</td>
<td>NPV = $2-20 million IRR = 3.2-20.8%</td>
</tr>
<tr>
<td>IWMI (1992-ongoing)</td>
<td>South and Central Asia (A: 50,000)</td>
<td>Irrigation management transfer</td>
<td>Not reported</td>
<td>Demands for policy advice</td>
<td>Not reported (policy study)</td>
</tr>
<tr>
<td>Center (Timing)</td>
<td>Location (Scale)¹</td>
<td>Project Type</td>
<td>Investment</td>
<td>Qualitative Impacts</td>
<td>Quantitative Impacts</td>
</tr>
<tr>
<td>----------------</td>
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</tr>
<tr>
<td>WorldFish (1986 - mid 1990s)</td>
<td>Malawi (A: 1000 t of fish per year; P: 15,000 t of fish per year)</td>
<td>Integrated agriculture-aquaculture with farmer participatory component</td>
<td>$1.5 million</td>
<td>Improved household nutrition</td>
<td>NPV = $3.1-3.5 million; 1.37 &lt; b/c &lt; 1.56; IRR = 12-13%</td>
</tr>
<tr>
<td>ASB System-wide program (1994-2006)</td>
<td>Brazil, Cameroon, Thailand, Philippines, Indonesia, Peru (scale not reported)</td>
<td>Strategies and policies for raising household productivity, incomes while mitigating deforestation</td>
<td>Not reported</td>
<td>Knowledge creation, policy insights, capacity building, integrated NMR</td>
<td>Not reported</td>
</tr>
</tbody>
</table>

¹ A = actual, P = predicted


Table 3.1.5 summarizes the case studies. Several important insights emerged:

- With the exception of zero-tillage packages in South Asia’s rice-wheat systems (see Box 3.1.6), the micro-level NRM research activities and the crop management packages they produced were of necessity rather location-specific. This distinctly limited the geographic scale over which these innovations could be projected to spread. Unfortunately, and probably in most circumstances unavoidably, this would appear to impose distinct limits on the ability of much NRM research to generate international public goods – a challenge that was identified in the 2003 CGIAR Meta-evaluation by the World Bank.

- The estimated internal rates of returns (IRRs) for the micro studies ranged from 3 percent to 66 percent. These are comparable to IRRs typically found for many agriculture innovations, and indicate clear payoffs to NRM research (at least for this particular set of case studies). They were not, however, as high as rates of return for CGIAR crop genetic improvement research noted above. Similarly, benefit-cost ratios were relatively smaller than those associated with CGI.

- For four of the five micro-level case studies, environmental benefits were not incorporated into the calculation of benefits due to the difficulty of quantifying them. Rather, the estimated benefits were confined to production impacts. Underestimating the true benefits in this way almost certainly biases downward the estimated rates of return and benefit-cost ratios.

- Compared to embodied technologies (like improved seeds), extension plays a more prominent role in facilitating the adoption of the knowledge- and management-intensive NRM technology products analyzed in the micro-studies. This aspect of NRM technology packages, coupled with poorly functioning public or private extension systems in study locations, meant that the projects’ outreach components were critical to their having significant positive impacts – a potentially important...
insight for future NRM research project design as well as for Center-level staffing allocations.

- The benefits described in the two macro-level policy studies were much more qualitative in nature due to difficulties in attribution of research impacts to the specific research outputs (i.e., contributions to knowledge). Analysis was confined to documenting impact pathways (as opposed to measuring specific impacts). These issues are common to many, perhaps most, policy-oriented research activities, as discussed further below.

Finally, SPIA’s NRM research studies also assessed the impacts of the System-wide Program on Alternatives to Slash-and-Burn (ASB). As with the macro-level studies noted above, the ASB evaluation had to grapple with difficulties of attribution of incremental enhancement of knowledge to a variety of information generators. Both qualitative and correlational analyses were supportive of links between ASB research results and influence over general knowledge, technology and policy, and capacity, but the quantitative rigor of these findings seems weak. The analysis also specifically acknowledges a lack of success in translating knowledge into actionable development initiatives.

Box 3.1.6: CIMMYT and Zero Tillage in India’s Rice-Wheat Systems

Evidence from long-term experimental trials suggests that crop yields have stagnated or even declined in rice-wheat systems of the Indo-Gangetic plains – an area encompassing over 10 million hectares. The reasons for the marked slowdown in productivity growth appear to be related to long-term degradation of soil and water resources in these intensive, and continuously cultivated, farming systems. In response, the Rice-Wheat Consortium (RWC) – a network of national, regional and multi-lateral partners including CIMMYT and IRRI – has developed and promoted several resource-conserving crop management technologies, the most widely adopted of which is zero tillage (ZT).

Zero tillage (ZT) allows wheat to be sown immediately after rice. This enables the wheat crop to make better use of residual soil moisture and facilitates more timely planting – both of which increase yields. It also reduces the number of operations required for, and hence the cost of, planting. The key technological component of ZT is use of specialized seeding and fertilization machinery. The magnitude of increased farm profits attributable to these improvements has been well documented.

CIMMYT’s role in promoting ZT in India was confined to facilitating (in collaboration with partners in the Indian NARS) the diffusion process by designing and implementing on-farm experiments for local adaptation. This was done using participatory methods involving farmers, scientists, and (private) equipment manufacturers. Focus groups and extensive interviews with stakeholders revealed that CIMMYT was instrumental in facilitating negotiations between private machinery producers and government decision makers – essentially by serving as an “honest broker” of information regarding use of the new technology and cropping methods.

Assessment of CIMMYT’s impact assumed that the economic gains from ZT diffusion occurred more rapidly than would have been the case absent CIMMYT’s involvement – i.e., that it would have followed the same (logistic) adoption curve, but with a lag of five years. Based on secondary and survey data, positive outcomes of ZT adoption included increased yields, reduced tractor usage, reduced water usage, reduced incidence of weeds, improved soil quality, and lower consumer prices (due to supply shifts).
Using conservative assumptions regarding yield growth and cost savings, the discounted value of the economic benefits over a thirty-year time frame were estimated to be $94 million, far in excess of the $3.5 million investment by CIMMYT and RWC. Roughly two-thirds of the benefits were attributed to consumer gains in the form of lower wheat prices; the other third fell to adopting producers in the form of greater profits. Note that the analysis did not even include environmental benefits associated with improved soil quality (structure, fertility, and biological properties); thus the measured benefit-cost ratio almost certainly is an underestimate.

Source: Laxmi, V., et al. (2007)

A less conservative scenario indicated total benefits of $164 million.

Pest Management Research

CGIAR research on pest management has been a particular aspect of its NRM research that involves conservation and use of natural enemies of crop pests and diseases. It complements CGI research on breeding resistance to pests and diseases, and has played an important role in yield stability in a range of crops. Pest management research at Centers has focused on biological control, integrated pest management (IPM), and resistant varieties (the last discussed above under CGI).

Biological control of alien pests and weeds has been a particular success story for the CGIAR, particularly in Africa. The capacity of CGIAR Centers to work effectively at both an inter-continental level, to identify biological control agents, and at a regional level with national programs, to distribute agents effectively, has contributed to this success. One of the best known cases is the control of the cassava mealybug in 20 countries of Sub-Saharan Africa. The biological control provided by an introduced wasp was so effective that the cassava mealybug is now largely controlled. Even when using the most conservative assumptions, the return on this research investment has been extremely high (net present value estimated at US $9 billion).

Table 3.1.7: Impacts of IITA’s Biological Control Programs

<table>
<thead>
<tr>
<th>Study</th>
<th>Pest</th>
<th>Location</th>
<th>Internal Rate of Return</th>
<th>Benefit-Cost Ratio</th>
<th>Net Present Value ($US M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alene et al. (2005)</td>
<td>Cassava mealybug</td>
<td>Sub-Saharan Africa</td>
<td>94-800:1</td>
<td>110-940</td>
<td></td>
</tr>
<tr>
<td>Coulibaly et al. (2004)</td>
<td>Cassava green mite</td>
<td>Benin</td>
<td>101%</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Coulibaly et al. (2004)</td>
<td>Cassava green mite</td>
<td>Ghana</td>
<td>111%</td>
<td>383</td>
<td></td>
</tr>
<tr>
<td>Coulibaly et al. (2004)</td>
<td>Cassava green mite</td>
<td>Nigeria</td>
<td>125%</td>
<td>1688</td>
<td></td>
</tr>
<tr>
<td>Bokonon-Ganta et al. (2002)</td>
<td>Mango mealybug</td>
<td>Benin</td>
<td>145:1</td>
<td>26</td>
<td></td>
</tr>
</tbody>
</table>

Biological control has since been extended in West Africa by CGIAR Centers and partners to cassava green mite, and mango mealybug, and water hyacinth. Evaluations consistently show very high returns to the investments in these programs (Table 3.1.7). Indeed, as was
noted above, biological control makes up a large share of the demonstrated benefits of the CGIAR’s research portfolio in sub-Saharan Africa.\textsuperscript{63} Coulibaly\textsuperscript{64} estimates investments in biological control of cassava green mite to have generated net present values of US$ 1.7 billion for Nigeria, US $383 million for Ghana, and US $74 million for Bénin (Table 3.1.7). And even these impressive benefits are likely understated, because the analyses did not account for ecological benefits.

Integrated pest management (IPM) research arose from a need to find alternatives to reliance on chemical pesticides to protect yield improvements in rice. Since this work in the 1980s, a number of Centers have contributed to a broad global effort by FAO, NARS and NGOs to develop IPM approaches, including development of biological pesticides and development of farmer field schools to train farmers in IPM. Farmer field schools have demonstrated significant benefits to farmers.\textsuperscript{65} A study that assessed CIP’s pilot field school program in Peru found a 14-percentage-point increase in knowledge score for participants and an estimated gain in productivity of 32 percent.\textsuperscript{66} And a project in Vietnam called “Three Reductions – Three Gains” begun by IRRI in 2003 shows promise in using mass media to disseminate information about the benefits of reducing pesticide use (as well as lowering seeding rates and fertilizer use). This project uses radio and TV dramas, in addition to more traditional extension channels, and has enjoyed some early successes, although these have yet to be to rigorously evaluated.

Longer term and larger scale impact of IPM training may be less certain,\textsuperscript{67} in part because, unlike improved crop varieties, the spread of knowledge intensive IPM methods requires considerable and maintained investment in training.\textsuperscript{68}

Finally, policy-oriented research by Templeton and Jamora\textsuperscript{69} to be described below provides evidence of large impacts of IRRI research on reducing the health costs of pesticide use. The value of private health savings from that research – attributable to regulation of highly toxic insecticides in rice production, labeling requirements, and training of rural health officers – has been estimated to have a net present value of $117 million.

**Summary Assessment**

A growing body of evidence suggests positive returns on investments in a variety of NRM research activities within the System. As methods for measuring impacts of NRM research become increasingly well-developed – in large part due to SPIA’s efforts to promote that line of impact assessment – documentation of net benefits to NRM research should accelerate.

However, much NRM research occurs at a relatively limited geographic scale vis-à-vis other types of CGIAR research, often because local collective action and/or delineation of property rights are central to adoption of NRM technologies (CIMMYT’s zero-tillage work...
in South Asia is a notable exception). This probably limits the potential for spatial spillovers of management methods and biophysical packages, particularly in comparison to spillovers associated with seed varieties.

Finally, NRM research impact assessments to date have focused largely on productivity benefits. Environmental benefits are largely ignored – presumably because of the methodological difficulties in quantifying them. Such quantification would presumably require non-market valuation techniques whose use is still relatively rare in developing country contexts. One unfortunate consequence of this is that there is little in the way of evidence regarding the success of the CGIAR in meeting its goal of promoting environmental sustainability.

### 3.1.3 Policy Oriented Research

Policy analysis is the basic mandate of four Centers (IFPRI, IWMI, CIFOR, and Bioversity) and is a major focus, to varying degrees, of all of the others. CGIAR expenditures on policy oriented research have grown substantially over time, both in absolute terms and as a fraction of the System-wide research portfolio.¹⁹ Conservative estimates place the total value of CGIAR investment in policy-oriented research since inception of the System at $800 million (in real 2004 terms), and more than triple that number using a broader definition of policy research.²¹

As with NRM research, the World Bank’s meta-evaluation of the CGIAR²² found a striking lack of credible studies analyzing impacts of the large historical investments in policy-oriented research. In response, SPIA conducted a Scoping study 2006 that identified and reviewed 24 ex post assessments of CGIAR policy-oriented research projects.²³ Only three of these 24 studies yielded empirical estimates of economic impacts. About half of the others (10 out of 21) documented “influences” (or outcomes, in the nomenclature adopted in this Review), generally relying on interviews of relevant stakeholders as “data.” The remaining 11 assessment studies only went so far as to document outputs, primarily via bibliometric and/or webmetric citations analysis. The 21 more qualitative studies spanned a range of policy domains: property rights, plant genetic resources, and gender, in addition to the NRM policy studies referenced in Table 3.1.3 above. These provide substantial qualitative evidence on how and why policy-oriented research and the research recommendations it generates find their way into the real-world policy formulation and implementation. But the studies stop short of quantifying impacts on core CGIAR missions of food security, poverty alleviation, and environmental sustainability, although they do represent an essential complement to quantitative research.

The dearth of empirical impact assessments is attributable to the very difficult challenges facing analysts of policy-oriented research in both the quantification of ideas and knowledge – the fundamental product of policy-oriented research – and their attribution.
to specific producers of that knowledge. Nevertheless, the authors of the Scoping study concluded that the “the level of measured and documented impact and influence attributed to CGIAR policy-oriented research by rigorous analysis is probably insufficient at present to justify the associated total investment made to date.”

Analysis of CGIAR Policy-Oriented Research Projects

As a follow-up to the Scoping study, seven impact assessments of policy-oriented research were commissioned in 2007 via a competitive selection process among the Centers. The project was overseen by the late Bruce Gardner until his death in early 2008, by which time the case studies had been presented at a final workshop. The seven studies are currently in preparation for publication in an edited volume.

Table 3.1.8: Policy Oriented Research Impact Assessments

<table>
<thead>
<tr>
<th>Center (Timing)</th>
<th>Location (Scale)</th>
<th>Program Assessed</th>
<th>Qualitative Impacts</th>
<th>Quantitative Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFPRI (1991-2003)</td>
<td>Bangladesh (17,811 schools, 2.1 million students)</td>
<td>Food for Education program</td>
<td>Program led to 20-30% increase in school participation rates. IFPRI influenced (a) program conception, (b) program evaluation, (c) improved program targeting, and (d) training and capacity building.</td>
<td>NPV of total benefits = $248 million IRR=64-96%</td>
</tr>
<tr>
<td>IFPRI (1992-2000)</td>
<td>Bangladesh (all consumers)</td>
<td>Rural Rationing program</td>
<td>Abolishment of the program; promotion of private tendering of food; lowered food prices; downward adjustment of food stocks.</td>
<td>Median NPV of total benefit = $41.1 million 11.7 &lt; b/c &lt; 60 Median IRR = 98%</td>
</tr>
<tr>
<td>CIFOR (1998-2005)</td>
<td>Indonesia (averted/delayed loss of 76,000 – 212,000 ha of natural tropical forest)</td>
<td>Political economy of the pulp and paper sector, causes of fiber sourcing practices and deforestation</td>
<td>Improvements in sustainability of pulp production practices, regulation of the pulp and paper sector, and due diligence for forestry investments.</td>
<td>NPV of total benefit = $19-583 million 3.8 &lt;b/c&lt;1512</td>
</tr>
<tr>
<td>IFPRI (1997-2000)</td>
<td>Mexico (5 million families)</td>
<td>Monitoring and evaluation of PROGRESA program of conditional cash transfers</td>
<td>(a) faster program implementation; (b) improved program evaluation and project manager training; (c) enhanced likelihood of program continuation beyond political regime changes; (d) spillovers to programs in other countries.</td>
<td>Median NPV of total benefits per student = $992 (a) b/c =16.4 (b) b/c = 5.8 (c) b/c =57.1 (d) b/c = 4.9 Total b/c=84.3</td>
</tr>
<tr>
<td>IRRI (1989-2018)</td>
<td>Philippines (90% of Philippine rice area, 80% of rice farmers)</td>
<td>Private health cost savings of pesticide use policies</td>
<td>Regulation of highly toxic insecticides in rice production; labeling requirements; and training of rural health officers.</td>
<td>NPV of realized benefit = $117 million b/c = 98; IRR = 65%</td>
</tr>
</tbody>
</table>

Sources (in order): Ryan and Meng (2004); Babu (2000); Raitzer (2007); Behrman (2007); Templeton and Jamora (2007).
Table 3.1.8 summarizes the findings of five policy-oriented research impact assessment studies that estimate quantitative measures of returns to investments. These include two of the three studies referenced in the Scoping study – analyses of IFPRI’s policy contributions to the Bangladesh Food for Education program\textsuperscript{76} and to the Bangladesh Rural Rationing program.\textsuperscript{77, 78} The table also provides summaries of three commissioned case studies that have been finalized: an assessment of CIFOR’s work analyzing the impact of forestry policies on derived demands for timber by the pulp and paper sector; an assessment of IFPRI’s role in PROGRESA, Mexico’s program of cash transfers conditional on certain educational and nutritional benchmarks; and an assessment of the net benefits (in the form of private health cost savings) attributable to IRRI’s research on pesticide policy in the Philippines.

All of these studies found substantial returns to policy-oriented research investments in the form of high internal rates of return and/or large benefit cost ratios.\textsuperscript{79} Moreover, the overall measured benefits of the projects were large – in the tens or hundreds of millions of dollars in net present value terms. However, a few qualifications to these positive results are in order:

- The studies reported in Table 3.1.8 employed different means of attributing behavioral changes to policy changes and what was the contribution of the relevant CGIAR Center to the policy change. All studies indicated that “conservative” assumptions were made in this regard, although defining what constitutes conservatism in this context is inevitably ad hoc. But importantly, if the Panel takes as a given that the authors of these studies have erred on the side of caution, then the true net benefits of policy-oriented research are larger – perhaps substantially so – than what is reported.

- Identification of the appropriate counterfactual – what would have occurred in the absence of the research that was conducted – is a difficult challenge for assessing policy-oriented research impacts. In most cases, the counterfactual related to earlier implementation of a policy or set of activities than would have occurred without the Center’s involvement. Again, there is little if any obvious guidance available in the impact assessment literature to assist in making these choices. As with attribution issues, the analysts tended to simply adopt “conservative” assumptions, presumably in the hope that any bias in the benefits estimation would be downward. This is not to meant to call into question the accuracy of the studies’ findings, merely to point out the inevitable lack of precision in the point estimates of impact (IRRs, benefit-cost ratios).

All five of these impact assessments were country studies conducted within a particular policy environment, but all produced knowledge relevant to policy domains in other countries. Such spillovers, if and when they occur, represent potent international public goods. Only the PROGRESA study quantified these spillovers, finding that they were in fact nearly five times greater than the entire cost of IFPRI’s contribution to the research.
activity (see Box 3.1.9). The earlier Ryan\(^\text{80}\) analysis of IFPRI’s contribution to policy change in Vietnam’s rice sector similarly found that the benefits attributable to spillovers greatly outweigh the project’s costs.

Box 3.1.9:  IFPRI and Mexico’s PROGRESA Conditional Cash Transfer Program

PROGRESA program had its genesis in the severe economic downturn that occurred in Mexico during the mid-1990s, a downturn in which Mexico’s poor were particularly hard hit. In response, a team of Mexican social scientists who were well-placed within the incoming Zedillo government conceived of a program of conditional cash transfers to mothers of young children and adolescents – as opposed to the traditional in-kind provision (of foods like milk and tortillas). The conditions for receipt of this cash assistance included school attendance, infants receiving nutritional supplements, and regular health and nutrition checkups for all family members.

IFPRI was first contracted by PROGRESA to provide evaluation of PROGRESA during the 1998-2000 period, with subsequent evaluation functions taken over by a Mexican quasi-governmental organization (the Mexican Institute of Nutrition and Public Health). These evaluative activities – which from the program’s inception incorporated state-of-the-art analysis of data collected from tens of thousands of participating households – were central to continuing refinements and improvements that have been made over the years. They revealed very large benefits, due to improved nutritional and schooling outcomes for program participants vis-à-vis non-participants. They also raised the international profile of PROGRESA considerably: PROGRESA has achieved international renown in large part due to the seriousness with which evaluation was undertaken.

Quantitative assessment of IFPRI’s contribution to the program’s success relied on a combination of interviews with key informants, written reviews of the program and popular press articles. These revealed four categories of impacts directly traceable to IFPRI’s involvement: (i) reduced delays in program implementation; (ii) improvements in evaluation techniques and accompanying improvements in Mexican program managers; (iii) enhanced likelihood of program continuation beyond political regime changes that occur in Mexico once every six years; and (iv) spillovers to programs in other countries (e.g., Brazil, Honduras, Nicaragua, Turkey) seeking to emulate PROGRESA.

Using conservative assumptions regarding benefits attributable to PROGRESA’s primary outputs (improved schooling and child nutritional outcomes) and the contribution of IFPRI’s involvement thereto, quantitative estimates suggest that benefits greatly exceed costs for all four of these categories. In large part this is due to the fact that PROGRESA has been so successful in improving the lot of millions of impoverished Mexicans. Thus, even under the very conservative assumptions made regarding IFPRI’s role in the program, the benefits attributable to IFPRI were still quite large relative to the costs of IFPRI’s participation.

Source: Behrman, J. (2007).\(^\text{82}\)

Other Recent Policy-Oriented Research Assessments

Two other recent qualitative impact assessments conducted under the auspices of IFPRI provide interesting insights into the effectiveness with which policy-oriented research translates to actual policy influence. A review of the Ethiopian Strategy Support Program’s activities and impacts over the period 2004-2007 indicates substantial success in the generation of research-based policy recommendations, development of policy-analysis tools (outputs), and capacity building within the nexus of Ethiopia’s government and research sectors.\(^\text{82}\) Central to the program’s successes was IFPRI’s strong on-the-ground presence (spearheaded by the program director, an Ethiopian national). In contrast, a review of IFPRI’s Global Research Project on the Sustainable Development of Less-Favored Lands over the period 1998-2004 found significantly less success in translating a large body of outstanding policy-oriented research generated by the project investigators into sustained policy influence in the countries of emphasis – Uganda, Ethiopia, and
In large measure, this lack of influence was attributed to limited on-site representation that interrupted the process whereby research findings can be transformed into policy.

### 3.1.4 CGIAR’s Impact on Poverty

Poverty alleviation is a core mission of the CGIAR, and a large fraction of research throughout its 37-year history has been oriented, at least to some degree, toward enhancing the welfare of the poor. Substantial evidence of pro-poor impacts of international agricultural R&D exist in the economics literature. Thirtle, Lin, and Piesse, pg. 1973\(^4\) conclude, for example, that “public sector national agricultural research systems, with the assistance of the CGIAR, can justly claim to have reduced poverty, probably more than any other single policy initiative.” On the other hand, more recent work by Alston, Dehmer, and Pardey\(^5\) contends that the broadening of CGIAR objectives over time – termed “mission creep” by the authors – has actually eroded the System’s effectiveness in fulfilling its various missions (including poverty alleviation).

Between 1998 and 2006, a program of systematic assessment of the extent to which CGIAR research has led to poverty reduction was implemented under IFPRI leadership. This effort culminated in an edited volume consisting of seven poverty impact studies.\(^6\) Table 3.1.10 provides a summary overview of five of these studies.\(^7\) Two studies assessing the poverty impacts of MV rice adoption in Bangladesh, China, and India were national in their coverage, while the studies of fishpond/vegetable technologies in Bangladesh, soil fertility replacement due to agroforestry in Kenya, and creolized and recycled maize varieties in Mexico had a much more limited geographic focus.

<table>
<thead>
<tr>
<th>Institution (Timing)</th>
<th>Location (Scale)</th>
<th>Program Assessed</th>
<th>Impacts related to poverty status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICRAF (1999-2002)</td>
<td>Kenya</td>
<td>Soil fertility replenishment</td>
<td>Social networks crucial to the poor attaining benefits of SFR. Households with little land, labor less likely to benefit. Positive impact on asset accumulation, but not on expenditure or nutrition.</td>
</tr>
</tbody>
</table>

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**Table 3.1.10:** Summary of Poverty Impact Studies
For the most part, the studies described in Table 3.1.10 were unable to establish firm empirical linkages between the technology products and packages and poverty reduction. The Bangladesh MV rice study found that the statistical significance of the positive relationship between area under MVs and incomes of the poor disappeared between 1987 and 2002. ICRAF’s analysis of agroforestry-related soil fertility replenishment technologies in Kenya appears to suggest that poorer households with smaller landholdings were less able to benefit from those technologies. In a similar vein, the analysis of fishpond/vegetable technologies in Bangladesh indicated landholdings were a limiting factor in adoption of fishponds for the poorest households, and that fishponds also may have raised the vulnerability of the poor to income-shocks. The study of creolized and recycled maize in Mexico raised interesting issues regarding informal breeding on the part of poor farmers and the links to CIMMYT germplasm, but fell short of quantifying its impact on the poverty status.

In contrast, the studies of MV rice in China and India provide fairly dramatic empirical evidence of impact. There it was found that between 1981 and 1999 more than 6.75 million Chinese were moved out of poverty due to IRRI’s research. In India the numbers are even more impressive: 14 million people rising above the poverty line between 1991 and 1999. These studies found that lower food prices resulting from increased aggregate production were the main pathway by which MV rice reduced poverty in China and India. But even here, there is one sour element to the story: The bulk of these impressive poverty reduction accomplishments occurred in the early part of the time period analyzed, with the marginal contribution to poverty reduction declining rather precipitously over time. The study’s authors attribute this to the combined effects of diminishing marginal yield improvements from investment in rice research over time and declines in IRRI’s research budget, along with the inevitable decrease in the marginal contribution of rice research to poverty reduction in the face of rapidly falling poverty levels.

Excludes non-adopting control villages or households used for purposes of comparison.
Technologies developed by ICLARM and Asian Vegetable Research and Development Center, respectively.

<table>
<thead>
<tr>
<th>Institution (Timing)</th>
<th>Location (Scale)</th>
<th>Program Assessed</th>
<th>Impacts related to poverty status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIMMYT</td>
<td>Mexico (2 States: 325 hh, 12 communities)</td>
<td>Creolized varieties and recycled hybrids</td>
<td>Popularity with poor farmers attributable to (a) cost savings vis-à-vis improved varieties; (b) superior production traits vis-à-vis landraces.</td>
</tr>
<tr>
<td>IFPRI (1981-1999)</td>
<td>China, India (National: district level data)</td>
<td>IRRI rice improvement research</td>
<td>China: 6.77 million people moved out of poverty due to IRRI research (but steady decline from 1,000,000 in 1981 to 30,000 in 1999) India: 14 million people moved out of poverty due to IRRI research during 1990s (but declining in latter half of decade) Decline over time in individuals moved out of poverty per US$1,000.000 of IRRI spending</td>
</tr>
</tbody>
</table>

Chapter 3 Impact of CGIAR Research
3.1.5 Capacity-Building

Capacity-building is not, strictly speaking, CGIAR research that generates specific outputs. However, it is an essential element of the CGIAR’s capacity to support the delivery of impact, through empowering NARS partners and others involved in the impact pathway. The CGIAR invests about 20 percent of its resources in capacity building to strengthen NARSs, a share that has remained relatively steady over time (see Section 4.2). Capacity-building covers a wide range of activities that can be broadly classified into (i) formal short-term and graduate training, (ii) networking activities, (iii) support to specific countries that integrates training, technical assistance and institutional and infrastructural development. In addition, capacity-building involves a range of informal activities such as mentoring of scientists.

Despite the substantial resources devoted to this activity, very few impact evaluations have been carried out; and those have had to confront a number of methodological challenges in terms of attribution of benefits to CGIAR Centers, establishment of meaningful counterfactuals, and assessment of spillovers. A few of these studies have been already mentioned in the context of policy-oriented research. Institutional capacity-building lies at the heart of CIFOR’s establishment of criteria and indicators of sustainable forest management in forest policymaking. Likewise, IFPRI’s Ethiopian Strategy Support Program has generated significant qualitative evidence of impact on capacity building within Ethiopia’s government and research sectors. Finally, much of the activities surrounding the Alternatives to Slash-and-Burn SWEP revolved around institutional capacity building in countries with large tracts of tropical forest land.

Another study conducted under the auspices of SPIA’s initiative on policy-oriented research deserves mention here. Gotor, Caracciolo, and Watts documented Bioversity’s pivotal role in the establishment of in-trust agreements (ITAs) governing CGIAR germplasm. These ITAs formally maintained the international legal status of germplasm that the CGIAR held in ex situ gene banks. This was truly a landmark achievement: Without ITAs, multilateral exchange of genetic resources would have been subject to significant disruption, as individual sovereign states would have had the authority to restrict access to CGIAR very sizeable germplasm holdings.

Training is one of the major capacity building activities of nearly all CGIAR Centers. A System-wide evaluation of training commissioned by the Science Council found that (a) Center training is broadly relevant to NARS’ capacity needs; (b) training quality is generally of high quality; and (c) trainees perceptions confirm that significant synergies exist between training and positive research outcomes. That review also found substantial regional differences in the effectiveness of training within the CGIAR, however, with particular deficits associated with poorer countries.
Graduate training has been favorably assessed by ILRI in terms of contribution to skills and by inference to institutional development. CIMMYT has conducted four evaluations of its in-service short courses since 1971. Most recently, Cooksy and Arellano favorably evaluated these short courses in terms of direct effects on new knowledge and skills, accessing new research methods, changing research priorities, and building of social capital among wheat and maize scientists from around the world. Neither of these two studies provide rigorous quantitative measures of impact, however. On the other hand, C. Jackson finds that impacts on training and capacity building of IFPRI’s research on gender and intra-household allocation were “rather lower than hoped,” due to lack of demand on the part of policymakers.

Networking is also a major capacity building activity of all Centers. These networks involve various forms of exchange of knowledge and materials and research collaboration, and many also provide equipment and training. However, the role of the CGIAR Centers and the organization of networks varies widely.

There are very few recent evaluations of impacts of these networks. One is a recent evaluation by Pray of the Asian Maize Biotechnology Network (AMBIONET) organized by CIMMYT in six Asian countries. This network was successful in developing new skills in molecular assisted selection focused on specific disease problems. The study also measured increased expenditure on maize research, more exchanges within the region, and a sharply increased rate of journal publication, especially in international journals (from four international articles before the network was established to 24 after establishment). This study goes beyond direct effects on network participants to look at spillover effects and potential economic impacts from faster progress in achieving disease resistance (even though products of the network have yet to reach farmers’ fields). A similar study by Longmore et al. reviewed a capacity building effort in biotechnology for insect resistant Bt sorghum in India. She also estimated a benefit-cost ratio of at least 24, again based on assumptions about future adoption of expected and yet to-be-realized outputs the project.

Finally, several Centers have undertaken long-term support to build country-specific research capacity, especially for weak NARS or countries emerging from civil conflict. IRRI has evaluated the impacts of these programs in Laos, Myanmar, and Cambodia, for programs that ran over a decade. While all three studies show rapid increases in rice production and incomes, they fail to show attribution or consider the counterfactual, although in all probability, IRRI’s contribution was critical to the success.

### 3.1.6 Synthesis and Conclusions

This chapter has documented recent published evidence on the impacts of CGIAR research as part of the Independent Review of the CGIAR System. As the focus of the Independent Review is on the CGIAR’s recent performance, this chapter has focused
Independent Review of the CGIAR System

primarily on impact assessments carried out since 2000. But because research impacts unfold over time – slowly, in many cases – many of the ex post analyses surveyed here reflect impacts of research that pre-dates the 21st Century.

A number of implications may be drawn from this survey of recent impact assessments as to how successfully the CGIAR Centers have been in recent years in pursuing the core missions of the System – agricultural productivity, poverty alleviation, and environmental sustainability:

• Global and regional meta-evaluations suggest that CGIAR research has delivered positive impacts in a range of programmatic areas and across a range of regions. Globally, investments in the CGIAR have paid for themselves by a wide margin. Successes of CGI research have been most prominent in most regions, although evidence suggests that biological control research has been more important in sub-Saharan Africa. The varying balance of impacts across regions suggests that both the regional and subject breadth of CGIAR research has been important to its observed level of success.

• Crop genetic improvement research, historically the bread and butter of the CGIAR, stands out as having had the most profound documented positive impacts. In part, this is due to the fact that embodied technologies like improved seed varieties are tangible outputs whose impacts can be readily measured and attributed to the Centers that produce them. Nonetheless, the direct productivity impacts and indirect (wage and price) impacts of yield-enhancing and yield-stabilizing modern varieties produced by the Centers and their NARS partners have been, and continue to be, large, generating profound benefits to poor people (both within and outside the agricultural sector).

• With respect to crop improvement, one worrisome aspect is the paucity of evaluative evidence since the landmark Evenson-Gollin study. However, there are currently some promising CGI products for which diffusion appears poised to “take off” (e.g., NERICA, bio-fortified products like QPM and Vitamin-A rice); and other successes like improved chickpeas and cowpeas have been found to produce impressive gains in local and regional analyses, but global impacts have yet to be comprehensively evaluated in a quantitatively rigorous way. Thus, there is a continuing need for the CGIAR Centers and/or SPIA to regularly update global assessments of the impacts for all crops (e.g., once every five years).

• Recent studies on NRM research have shown substantial benefits and positive internal rates of return on investment. Impact assessment in this area is recent, but due to SPIA’s efforts to promote it, methods are increasingly well developed and there should be evidence of an increase in the pace at which empirical evidence of NRM research impacts are documented.
- Much NRM research occurs at a relatively limited geographic scale vis-à-vis other types of CGIAR research, often because local collective action and/or delineation of property rights are central to adoption of NRM technologies. This probably limits the potential for spatial spillovers of management methods and biophysical packages, particularly in comparison to spillovers associated with seed varieties.

- NRM research impact assessments to date have focused exclusively on productivity benefits. Environmental benefits are largely ignored – presumably because of the methodological difficulties in quantifying them. Such quantification would require non-market valuation techniques whose use is still relatively rare in developing country contexts. One downside of all this is that there is little in the way of evidence regarding the success of the CGIAR in meeting its goal of promoting environmental sustainability.

- Policy-oriented research offers significant potential for generating broad impacts affecting large numbers of people, and for generating knowledge relevant to policy domains in countries other than where the research takes place. But because knowledge and ideas are the fundamental product of much of this line of research, attribution of impacts and establishment of credible counterfactuals is a formidable constraint to impact evaluation. Studies frequently resort to ad hoc, albeit well-reasoned, assumptions in order to quantify impacts. Other studies evaluating policy-oriented research do not go beyond chronicling outcomes such as citations counts or the number of downloads. There are, however, some good examples of empirically rigorous impact evaluation that have been highlighted here (e.g., PROGRESA and Bangladesh’s Food for Education program).

- The more qualitative studies of impacts of policy-oriented research suggest that sustained on-the-ground presence of researchers within the policymaking arena is a critical element in research findings being transformed into actionable policies. The successes of PROGRESA and the Ethiopian Strategic Support Program are examples of this.

- Poverty research suggests that attributing poverty reduction to specific CGIAR research activities is very difficult. In large part, this seems to be related to the large number of social, economic, and political factors that are outside the influence of the CGIAR but nonetheless significantly alter the transmission and distribution of benefits from CGIAR research products. On the other hand, the Fan et al. study of the impacts of MV rice in China and India reveals profound pro-poor impacts of IRRI’s CGI research, mainly by lowering food prices. However, even that study shows a weakening impact on poverty reduction over time (and it does not measure benefits beyond 1999).
• Analyses of the CGIAR’s capacity building efforts tend to be qualitative. Several tell convincing stories of human capital formation and enhancement of institutional effectiveness, but fall well short of providing rigorous empirical evaluation. For those who believe that enhancing the stock of human and institutional capital inevitably leads to aggregate welfare gains, these stories are likely persuasive. But for others, more rigor is probably needed for them to be convinced.

3.2 Stakeholder Views on CGIAR Research Effectiveness

The Review Panel conducted a survey of some CGIAR stakeholder groups, which is described in Appendix 1. As part of this survey, stakeholders were asked how effective the CGIAR and Centers have been with respect to different research areas. While effectiveness is not necessarily a measure of impact, the results do shed light on how Centers and donors in particular perceive the success of CGIAR research. The headings selected correspond to the five System Priorities developed by the Science Council (see Section 12.1.2), namely:

• Sustaining biodiversity for current and future generations;
• Genetic improvements to produce more and better food at lower cost;
• Agricultural diversification and help for farmers so that they can take advantage of emerging opportunities for high-value commodities and products;
• Sustainable management of resources (water, land, forests); and
• Improving policies and facilitating institutional innovation

The results of this survey is summarized in Figure 3.2.1 for all stakeholder groups, and for three specific groups; ExCo and Members; Center Board Chairs, Directors-General and Deputy Directors-General, and members of the Science Council. The great majority of respondents in all three groups shared the view that the CGIAR has been effective or highly effective in the first two research areas, associated with conserving and improvement plant and animal genetic resources. For NRM research, captured largely under “sustainable management of resources”, only about half of respondents thought research to be effective or highly effective, and for policy-oriented research, captured under “improving policies and facilitating institutional innovation”, this proportion was only about a third. In all cases, there was considerable consistency across stakeholder groups.
Comments from respondents in the survey identified several factors constraining effectiveness, including a lack of funding, particularly for crop improvement research, a lack of time (e.g. agricultural diversification is a very new subject created for the System Priorities) and the complexity of impact pathways, particularly for NRM and policy-related research.

Overall, internal CGIAR views on effectiveness of research matches quite closely the pattern of evidence from impact assessment. There is considerable confidence in the effectiveness of CGI research and less certainty, though considerable optimism, about the effectiveness of NRM and policy-related research.

### 3.3 What EPMRs Say About CGIAR Research Impact

The principal source of external, expert opinion on the effectiveness of CGIAR research are External Program and Management Reviews (EPMRs), evaluations of Center performance conducted every 5-8 years. They are organized by the Science Council (formerly by TAC) and their purpose is to provide independent guidance and feedback to Centers. Typically, EPMRs examine four aspects of Center performance: (1) their mission, strategy and priorities, (2) the quality and relevance of their science, (3) the effectiveness and efficiency of their management and (4) accomplishments and impact. EPMRs are conducted by a team of scientists and management experts with knowledge relevant to the subject area, supported by the Science Council Secretariat. Their EPMRs are published with comments from Centers and Science Council.
The particular value of EPMRs, besides being independent evaluations, is that they have examined Center research over the most recent period. All Centers have been reviewed during the period covered by the Independent Review. Indeed, due to the hiatus in EPMRs during the transition between TAC and Science Council, EPMRs for 12 Centers have been produced in 2006 or 2007. In addition, seven Centers have had two EPMRs since the Third System Review in 1998, while the remainder have had two reviews since 1997. An unpublished analysis for this review by Chris Gibbs in 2008 examined the two most recent EPMRs for all 15 Centers. This was to gain an impression of the quality and relevance of Center science in recent years and, by comparison with a preceding EPMR, any clear trends in performance since 2001.

EPMRs proved difficult to compare, in terms of science relevance and quality. Different panels may define science quality and outputs, outcome and impacts quite differently, and they may use different methods to assess these – for instance some may use publication statistics as a quantitative measure of output while others may take a highly qualitative approach which does not use publications. Finally, Panels may have different orientation, e.g. towards development success vs. scientific competence, depending on their composition and leadership. It is just this variability in EPMRs that the Science Council has recently begun to address with some effect (see Section 6.3.2).

The reporting of scientific performance in recent EPMRs may be organized into information on outputs, outcomes and impacts, which allows us to see the overall status of each, as well as trends relative to previous EPMRs.

Outputs recorded in EPMRs include increased numbers of germplasm accessions and characterizations, published research results (both peer-reviewed and not), accessible databases and information sources, and occasionally patents, inventions and research techniques. Training and capacity building are also reported as outputs, but given comparatively little weight in EPMRs.

Overall, the quality of outputs has been variable, ranging from acceptable to outstanding. Taken across all Centers, views on outputs from one EPMR to the next show no consistent pattern. Some Centers receive generally better ratings in more recent EPMRs, some receive very similar ratings, and some generally worse ratings. If anything there is a slight downward trend with recent reviews being more critical of output quality. However, this change is also related to a greater emphasis in recent EPMRs on indicators of international scientific quality, particularly peer-reviewed publications in high impact journals as the single most important determinant of quality of outputs. This emphasis reflects efforts of the Science Council to focus Center research more on delivery of strategic research and IPGs. In effect, recent EPMRs have, with a few exceptions, “raised the bar” with respect to measures of output quality.
There is, overall, limited reporting of outcomes in EPMRs, creating a gap in evidence of an output-outcome-impact continuum. This may reflect a tendency of review panels to focus on outputs and impacts. However, given that reported impacts are usually associated with work done at least a decade before, this outcome gap does raise the question of whether CGIAR scientific outputs, overall, are having sufficient uptake along impact pathways.

Impacts reported in EPMRs are more apparent for crop genetic improvement research than for NRM research, but it is also clear this may result from the more complex impact pathways for NRM research and poorer methods for measuring impact in this area. In general, impact assessment work is regarded as deficient across Centers, either because there is too little of it or it is not high quality, although there are a few exceptions. Ex ante impact assessment is getting more attention by Centers. The effort by Science Council to foster an “impact assessment culture” in Centers is not yet evident from most recent EPMRs, only three of the 15 recognized the creation of such an impact assessment culture in most recent EPMRs.

It was clear from EPMRs that many Centers are under pressure from donors and NARS to undertake more applied research and capacity building, aimed at more local and immediate outcomes and impact. Some Centers are committed to maintaining a balance between strategic research and activities that support the delivery of outcomes and impact. This is evident in responses to EPMRs, particularly in concern expressed about international peer-reviewed publications as a measure of Center research performance. For instance, one Center, in responding to its most recent EPMR, commented “the requirements of journal publications are often iminical to practical adoption analysis as part of an on-going programme of research.”

The most striking observations emerging from a review of EPMRs is the clear conflict in some Centers between the generation of outputs which are IPGs on the one hand, and effort to work with partners in turning outputs into outcomes and impacts on the other. With a few exceptions, the recent trend in EPMRs has been to emphasize the former, and this has been associated with the strong emphasis placed on more strategic research and IPGs by the Science Council and System Priorities since 2004. Centers generally accept all or most recommendations of EPMRs, and therefore, in the future, the Centers should be adjusting their programs accordingly. If Center activities aimed at supporting the delivery of outcomes and impacts are truly effective, and if partners are not able to substitute for such Center inputs, the result may be a decline in future impact of Center research.

The Performance Measurement System, in operation since 2005, provides an annual assessment of Center outputs and outcomes, although most outcomes recorded are “intermediate” in that they indicate uptake of the research but not whether that use proved to have positive benefits. In principle, it provides detailed information on trends between successive EPMRs. However, as described in Section 12.3, the PMS is relatively new and still evolving and patterns over the past three years need to be interpreted very
carefully. These patterns do show an increase in publications between 2005 and 2007, (Fig. 12.3.11, a measure of outputs) and a decline in the rated quality of reported outcomes (Fig. 12.3.8). But both may be changing for quite different reasons. For instance, publications can be produced relatively quickly, while outcomes are not so easily controlled and there may be substantial gaps in time between high quality examples.

3.4 Conclusions and Recommendations

Overall, recent assessments of CGIAR research on a global, regional and local level have revealed very positive returns on investment. Specific impact assessment studies inevitably tend to select more promising projects for analysis, but it is noteworthy that global return on CGIAR research expenditure, when set against total expenditure on all projects, is still very positive. Studies reveal that it remains difficult to associate specific research impacts with poverty reduction, due particularly to the many social, economic, and political factors outside the influence of the CGIAR that lie along the impact pathway and which affect the flow of benefits.

Much of the impact assessment reviewed in this chapter relates to research which predates the period of review, 2001-2007. As far as possible, this has been augmented by information on outcomes and impact from work done since 2001. Overall, it is reasonable to conclude that the CGIAR continues to undertake research which has a high potential for impact. A number of factors may, however, limit this potential, including the slow growth of CGIAR funding in real terms (Section 15.2), and the ability of Centers to contribute to impact pathways with partners. Elsewhere in this review it is noted that investment in capacity building has not grown over time, and that NARS support may be declining in the face of a greater emphasis on strategic research and delivery of IPGs. Evidence from reviews of EPMRs and PMS data above raise this issue of conflicts between generating research and contributing to impacts, and the possibility that recent research outputs are not generating expected outcomes, which needs to be carefully monitored.

3.4.1 Limitations of Impact Analysis

This review has been based on economic impact assessments of CGIAR research that do not generally capture those impacts of CGIAR research, positive or negative, which are not easy to evaluate economically. As mentioned earlier, this is one reason that assessment of NRM and policy-oriented research impact assessment has lagged behind that of CGI research. There are indirect impacts of CGIAR research that are not well measured, perhaps the most important of which are environmental effects. Indirect effects on the environment may be positive or negative. Much reference has been made to the potentially positive effects of improved productivity on reducing the conversion of natural habitats to agricultural use (Nelson and Maredia 1999). More specifically, NRM research can increase carbon sequestration and/or reduce greenhouse gas emission, for instance through zero tillage and agroforestry, while environmental pollution may be reduced by
practices, such as integrating aquaculture and agriculture, which reduces nutrient loss, or by avoiding harmful pesticides, as is achieved with IPM. At the same time, the intensification of production systems that may accompany introduction of new varieties can have negative environmental and health effects, which need to be considered in an impact balance sheet. Negative effects may also arise from the way in which new technologies affect employment and income especially for women. Improved assessment methods will be needed to ensure that these externalities are captured in future analyses of CGIAR research outcomes and impacts.

3.4.2 A Focus on Africa

Recent regional assessments have emphasized the striking contrast between the impact of CGIAR research in sub-Saharan Africa and South Asia. Work on improved crop varieties started later in Africa than in Asia, and African benefits from CGIAR research to date are profoundly dominated by the success of a single biological control program against an accidentally introduced pest. While this outstanding biological control success illustrates a valuable institutional capacity of the CGIAR to react to the global movement of pests, removing it from the impact list reveals how little the CGIAR has achieved in Africa in its core areas of research.

This impact assessment represents research done over a decade ago. Since then annual CGIAR research expenditure has been rising, in nominal terms from $355 million in 1996 to $489 million in 2007, although in real terms, this is effectively no change (Chapter 4). However, investment in Africa has risen from 38 percent to 48 percent of this total CGIAR expenditure over that period. There is evidence cited above that recent CGI and NRM research outputs arising from this investment, and directed at improving crop and fisheries productivity in Africa are promising and are being adopted. It is too early to know whether these recent research outputs and outcomes will deliver impacts comparable to those achieved in other regions. There is also concern, for instance in the case of NERICA rice, that adoption of new varieties is proceeding less rapidly than anticipated. There is a particular and continuing need therefore to focus on CGIAR research assessment in Africa, to ensure that valuable research is being generated and that impact pathways and partners are being supported, with appropriate inputs to that support from research and capacity building at CGIAR Centers.

3.4.3 Areas of Research Performance and Investment

With respect to the different areas of CGIAR research, specifically CGI, NRM and policy-oriented research, an inability to compare NRM and policy research impact with much better documented impacts of CGI research has been one contributor to concern that the growing proportional allocation of CGIAR funding to the former areas (Chapter 4) is not
optimizing impact of the CGIAR (CGIAR 2003). Since then, additional impact assessment studies has given a better picture of CGI, NRM and policy-oriented research impact.

Recent studies of impact of CGI research, particularly in Asia, show outstanding and sustained impact over time. On the basis of outputs and outcomes of research since 2001, it is reasonable to conclude that CGI research will continue to be of great value, and will continue to generate opportunities for spill-over effects.

For NRM and policy-oriented research, recent impact studies show that they too can have a positive impact and make a substantial return on investment. These studies relate to research undertaken largely in the 1990s, but such evidence as exists on outcomes and impacts since then suggests that CGIAR research will continue to deliver impacts in these areas.

The studies also suggest that NRM and policy-oriented research impacts have a tendency to be relatively location-specific, at the country level for successful policy programs like PROGRESA in Mexico, or perhaps at the regional level for successful NRM projects like cassava mealybug control in Africa or zero-tillage in cereal systems in South Asia. NRM research is often knowledge intensive, requiring considerable investment by partners in sustained training and empowerment of farmers. Policy research often generates ideas and knowledge whose translation into actionable impacts requires a sustained presence of researchers within the policy arena – not always feasible when project funding is time-limited and/or conducted by researchers who are not based in-country. Hence, it is likely that NRM and policy research will deliver IPGs more at the regional than the inter-continental level.

Evidence suggests, therefore, that CGI, NRM and policy-oriented research are all having substantial impact and will continue to make, contributions to future impact. It is noteworthy that the most recent PMS ranking of Center research outcomes places in the top ranked ten programs, six relating to CGI and two each relating to NRM and policy-oriented research (Section 12.3.6).

From studies to date, CGI research appears to have comparatively more potential for spill-over effects. CGI research continues to receive the largest share of CGIAR investment, and this is perhaps appropriate for this reason. However, treating CGI, NRM and policy-oriented research as independent, alternative investments creates a misleading impression. NRM and policy research are essential to the success of CGI research, a point made eloquently by analysis presented in the 2003 Meta-evaluation, which referred to CGIAR research needing to walk on the “two legs” of CGI and NRM research (where NRM research included “policies for improved NRM management”). Much NRM research in the CGIAR has its origins in efforts to secure and maintain the full benefits of crop genetic improvement. The substantial benefits arising from Participatory Varietal Selection (PVS), biological control and IPM research, for instance, are reflected in their impact on the
uptake and protection of productive new crop varieties. Likewise, policy oriented research will be complementary to CGI if such research successfully contributes to a policy environment that facilitates more rapid technology adoption (e.g., by remediating input supply bottlenecks) or mitigates distortions that impede the transmission of price effects to consumers.

Concerns about the relative value of NRM and policy research have related not only to evidence for their impact, but the lack of focus and dilution of CGIAR effort when directed across very different research areas. As independent areas of agricultural research, NRM and policy research may be better delivered by other, specialized or more local institutions. The CGIAR’s comparative advantage in undertaking research in such a range of areas lies in the way in which it integrates this research to deliver desired outcomes and impacts.

Recent development of CGIAR research strategy, particularly deliberations of the Change Management exercise, have emphasized this integrated and holistic approach, emphasizing objectives of “food for people, environment for people and policies for people.” The System Priorities (Section 12.1) also give these research areas equal prominence. But including research areas in priorities is not the same as integrating them to achieve specific strategic results, a problem with the System Priorities which will be address in Chapter 12.

The 2003 Meta-Evaluation saw inter-Center cooperation as a means of achieving this integration across research areas, because research expertise was clustered in different commodity, eco-regional and policy-oriented Centers. Inter-Center programs, such as Challenge Programs and Center consolidation were mechanisms for this. Other Chapters of this Review will evaluate the success of reform efforts but, broadly speaking, Centers have shown a growing capacity and tendency to collaborate. Also, it is interesting to note that recent efforts to match Center research to System Priorities (see Section 12.1.5.) show that most Centers are investing themselves across CGI, NRM and policy research areas.

3.4.4 Impact at the System Level

While Centers may be moving towards greater collaboration in delivering research outputs, the CGIAR’s System-level contribution to impact is still very much a story of the aggregated contribution of individual Centers. The impact of the collective effort of the CGIAR, as a System, has not been evaluated. There is some indication that, by working across Centers, such impact may be improved. The scale of success of NRM research by the IRRI-CIMMYT rice-wheat consortium in South Asia may be one example. New Challenge Programs which exploit the synteny of traits across crops, e.g. for drought resistance or micronutrient levels, is another illustration where inter-Center cooperation can lead to broader impact.
One of the unrealized opportunities for the CGIAR is to make collective impact on agricultural policy at an international level. In the recent food crisis, Centers like IFPRI and IRRI have made important and influential contributions to global debate. Individually, Centers also have the potential to make important contributions on the likely effects of climate change on agriculture. Collectively, this voice would have far more value and impact. Evaluating the collective impact of the CGIAR on global agricultural policy is a neglected area of impact assessment. This Review will propose in Chapter 13 that a first step towards delivering such international strategic impact on policy is the creation of a formal consortium of Centers, generating a collective Center voice. Impact assessment at this global scale will be an important part of developing a more collective, programmatic approach to research in the CGIAR, and methods for this should be in development.

### 3.4.5 Recommendations

The Panel recommends that impact assessment continue to be an important part of Center and System activity. An analysis of recent EMPRs raises concern that, while outputs are numerous, outcomes are rarely reported, and that a growing emphasis on generating outputs may be competing with efforts to ensure that they lead to outcomes and impacts. This makes it the more important that the impact of research is continuously assessed.

The Panel also stresses the need to better assess the impact of all research areas, improving methods and levels of assessment for NRM and policy-oriented research and for capacity-building, and understanding the contribution of all of these research activities to the delivery of specific strategic objectives. In this context, the Panel also recommends continued effort to understand the impact of CGIAR research on poverty reduction.

There is a particular need to focus on understanding the impacts of CGIAR research in Africa, given the comparatively low historical impact and recent investment and promising outputs. Understanding factors limiting outcomes and impacts of improved crop varieties, like NERCIA rices, will be important to ensuring investment by partners and Centers to improve impact in this region.

Finally, the Panel notes the need to consider the effect of CGIAR research which are not easily addressed through conventional impact studies. This relates particularly to aspects of NRM and policy-related research, but also to all aspects of CGIAR research in the context of indirect positive and negative benefits. The lack of assessment of the environmental consequences of CGIAR research is of particular importance in the context of issues which will threaten agricultural production in future, including climate change and growing water scarcity and land degradation. The Panel recommends that future *ex ante* and *ex post* impact assessment make efforts to accurately assess environmental, gender and other indirect consequences of agricultural research for development.
Notes


3 The choice of 1960 was made to account for expenditures made by the founding Centers prior to formal inception of the system in 1971.


8 Ibid.


10 Ibid, pg 18.


15 In addition, most studies tend not to explicitly address counterfactual scenarios of technology products that would have been produced (by alternative sources) in a world without the CGIAR – Evenson R.E and M. Rosegrant (2003) being a notable exception.


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49 Ibid.


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60 The case studies were selected on the basis of a competitive submission process, as opposed to some sort of representative sample of NRM research activities.


70 Using data from CGIAR annual reports, Havenner computes that overall funding for policy grew by roughly 85% between the early 1992 and 2005 – from 10% to 16.5% of the total system-wide budget. During the same period, production-related fell by 15%, from nearly half to just over one-third of the system-wide budget (Art Havenner, pers. comm.).
74 Ibid at 19.
78 The third study was conducted by Ryan (1999) focused on IFPRI rice pricing policy analysis in Vietnam, finding benefit-cost ratios in excess of 50. It is omitted from the table because it was conducted prior to 2000.
79 Preliminary results from two of the other commissioned studies – analyses of ICARDA research on Syrian fertilizer supply policies and barley production (Shideed et al. 2007b) and ILRI research on dairy marketing policy in Kenya (Kaitibie et al. 2007) – also indicate benefits exceeding cost by a substantial margin.


87 Two other case studies – of hybrid maize in Zimbabwe and of agricultural research-urban poverty linkages in India and China – are omitted from consideration here because the poverty impacts they chronicle are not explicitly connected to the specific CGIAR research or technology products.


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In contrast, the other studies, which focused on direct productivity effects, did not find significant linkages between technology adoption and poverty reduction.


SPIA is currently initiating an effort to develop methods for accommodating these challenges.


Chapter 3 Impact of CGIAR Research


CHAPTER 4
THE CGIAR AND ITS AFFILIATED CENTERS

4.1 The CGIAR System

4.1.1 History

The CGIAR was created in 1971 as an informal association of donors supporting four international agricultural research Centers the Ford and Rockefeller foundations had established previously. The CGIAR was to serve “both as a mechanism for coordinating donor policies and actions and as an informal forum for discussion.”\(^1\) The founding donors wanted the CGIAR to have an informal character. As a result, they created it without a charter, rules of procedure, or bylaws governing membership. Decision-making was to be by consensus.\(^2\)

The CGIAR was the first global public goods program to receive funding from the World Bank’s net income. The CGIAR made it possible to establish consultative groups to address other development issues and to create other multilateral partnerships and programs focused on global public goods.

Since inception, membership has grown (from 17 to 64), and there are now 15 CGIAR-supported Centers (down from a high of 18). The research agenda has become more complex, and attention to stakeholder input has increased. As a result, the CGIAR “System” has become more complex than it was earlier, with multiple layers of committees and service units supporting it.

4.1.2 Mission

The current mission of the CGIAR is “to achieve sustainable food security and to reduce poverty in developing countries through scientific research and research-related activities in the fields of agriculture, forestry, fisheries, policy, and environment.”\(^3\)

The first mission statement of the CGIAR was “to support research and technology that can potentially increase food production in the food-deficit countries of the world.”\(^4\) Since then, to reflect the CGIAR’s growing emphasis on poverty reduction, environmental sustainability and institution strengthening, and its broadening research agenda, the members have revised the mission statement five times.

Each Center has its own mission statement that reflects its work.

At the time of writing this report, the CGIAR is engaged in major change exercise. The first step in this process has been to develop a new vision, mission statement and strategic
objectives, which will be discussed at AGM08. Options for governance structures, resource mobilization, partnership and programming are also being considered in a multi-stakeholder consultative process.

4.1.3 Governing Principles

Six governing principles have formed the basis of CGIAR since its founding:
- Member sovereignty
- Center autonomy
- Independent scientific advice
- Consensus decision making
- Informal status (the only legal entities are the 15 independent Centers)
- Non-political nature

The Third System Review upheld the first three of these principles. The Review noted, however, that individual member governments should harmonize their own national policies and speak with one voice in all international fora relevant to CGIAR business, and particularly on the issues of genetic resources and intellectual property rights. The review further recommended that CGIAR modify and update the last three characteristics “to enable the System to address the current and anticipated needs of the CGIAR and its stakeholders effectively.” The CGIAR rejected the review’s recommendation to change its governing principles, choosing instead to continue its consensus decision-making, informal status, and non-political nature.

The 2003 Meta-Evaluation by the World Bank’s Operations Evaluation Department (OED) (now IEG, the Independent Evaluation Group) also examined the CGIAR’s governing principles. Concerning the CGIAR’s informal status, OED, similar to the Third System Review, suggested the CGIAR consider reconstituting all or part of itself as a separate, legal entity, “attuned to deal with today’s realities on public-private partnerships.” The OED Meta-Evaluation also called for the CGIAR to adopt a written charter and to delineate the roles, responsibilities and accountabilities of the officers and units of the System.

For the second time, CGIAR rejected the notion of creating a legal entity. At its AGM in 2004, however, the CGIAR did adopt a written charter. The Charter of the CGIAR System sets out the roles and responsibilities of the various parts of the System. In March 2007, the CGIAR subsequently updated its Charter. Despite the Charter, the stakeholder survey conducted by this Independent Review found a lack of clarity on the roles and responsibilities continues to pervade the CGIAR System (see Appendix 1).
4.1.4 Membership

The CGIAR currently includes 64 members, 25 developing countries, 22 industrialized countries, four private foundations, and 13 regional and international organizations (see Table 4.1.1 below).

Table 4.1.1: CGIAR Members

| Countries | Australia, Austria, Bangladesh, Belgium, Brazil, Canada, China, Colombia, Cote d'Ivoire, Denmark, Egypt, Finland, France, Germany, India, Indonesia, Iran, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Malaysia, Mexico, The Netherlands, New Zealand, Nigeria, Norway, Pakistan, Peru, The Philippines, Portugal, Republic of South Africa, Romania, Russian Federation, Spain, Sweden, Switzerland, Syrian Arab Republic, Thailand, Turkey, Uganda, United Kingdom, United States |
| Foundations | Ford Foundation, Kellogg Foundation, Rockefeller Foundation, Syngenta Foundation for Sustainable Agriculture |

Source: CGIAR Secretariat

After a significant expansion of members in the 1990s (most notably from developing countries), membership has stabilized in the past several years. Since 2001, there have been only six new members (Israel, Malaysia, Morocco, Turkey, the Syngenta Foundation for Sustainable Agriculture, and the Gulf Cooperation Council). Over the years, two members (Leverhulme Foundation and Saudi Arabia) have left the CGIAR officially.

Table 4.1.2: Number of Members, by Category, 1990, 2001 and 2007

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>2001</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>24</td>
<td>43</td>
<td>47</td>
</tr>
<tr>
<td>Foundations</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Organizations</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

Sources: CGIAR Annual Reports

To be a member, a member must agree to:
- support the mission and objectives of the CGIAR
- participate in the deliberations of the CGIAR
- serve on its committees
- make a minimum yearly cash contribution US$500,000 toward supporting CGIAR-approved research programs or governance mechanisms of the CGIAR System.

In 2006, 15 members had the status of “member-observers,” in that they had not paid their minimum contributions for the previous two calendar years. In 2007, there were 11 “member-observers.” Member-observers may attend the AGM and participate in face-to-face and virtual discussions but may not participate in decision-making, nor sit on the Executive
Council. As a result, in 2006-2007, 40 percent of developing country members effectively could not participate in CGIAR governance. To recognize the importance of the voices of developing countries in governance of the CGIAR, the Third System Review recommended the CGIAR officially recognize in-kind contributions. So far, in-kind contributions are not counted toward membership contributions.

The President of the World Bank nominates the CGIAR Chair. Since 1974, the Chair has usually been a World Bank Vice President or Senior Vice President in charge of agriculture.

Of the CGIAR members, the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), the United Nations Development Program (UNDP) and the World Bank serve as CGIAR Co-sponsors.

The CGIAR’s Charter states that co-sponsors provide the Chair with continuity, strengthen the international character of the CGIAR System, and serve as an informal policy advisory group to the Chair. Co-sponsors also are intended to “assist the CGIAR in crisis management, should the need arise.” The Third System Review recommended that CGIAR eliminate the role of co-sponsor and replace it with permanent seats for those organizations on the Corporate Board proposed by the Review. (The recommendation to form a Corporate Board was rejected by the CGIAR and co-sponsor status today remains as it was at the time of the Third System Review). The Third System Review also saw a need for joint programmatic efforts between the CGIAR and the cosponsoring agencies to receive high priority, especially in the area of strengthening NARS.

4.1.5 The System

As a formal organization, CGIAR does not exist. CGIAR is an informal network of independent institutions (Members and Centers) that have agreed to work together around a mutually accepted mission.

The network refers to itself as the “CGIAR System.” The primary components of the CGIAR System are the Consultative Group on International Agricultural Research (the Members); a Science Council, that provides independent scientific advice to the Consultative Group; and the 15 independent international agricultural research centers (the Centers). The Executive Council (ExCo), various standing committees, and the System Office, which is a group of service units, support these interdependent components of the System. (see Section 4.6 for a more detailed discussion of the “system” nature of the CGIAR).

The Executive Council (ExCo) of the CGIAR is chiefly a committee of shareholders (Members), expanded to include stakeholders. Industrialized and developing country members are represented equally. The ExCo also includes a seat for the Science Council
Chair, an Alliance representative, the Global Forum on Agricultural Research, and a representative each from civil society and the private sector, who serve as full members.

In 2005, the CGIAR Centers formed an Alliance to strengthen and guide the collective work of the individual Centers. The Board Chairs of all 15 Centers sit on the Alliance Board, and the Centers’ Directors General form an Alliance Executive.

The Science Council and the Genetic Resources Policy Committee (see Chapter 6) are the two CGIAR advisory committees, the Private Sector Committee and the NGO Committee, though the latter was dissolved in 2006, are the two partnership committees. As necessary, the Group or the ExCo create ad hoc committees to address particular issues.

Table 4.1.3: Active Standing Committees of the CGIAR System, 1997-2007

<table>
<thead>
<tr>
<th>Committee</th>
<th>1997</th>
<th>2003</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGIAR Executive</td>
<td></td>
<td>Executive Council (ExCo)</td>
<td>ExCo</td>
</tr>
<tr>
<td>Oversight</td>
<td>Finance Committee</td>
<td>ExCo Finance Committee</td>
<td>ExCo Program Committee</td>
</tr>
<tr>
<td></td>
<td>Oversight Committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory</td>
<td>Technical Advisory Committee (TAC)</td>
<td>Science Council GRPC</td>
<td>Science Council GRPC</td>
</tr>
<tr>
<td></td>
<td>Genetic Resources Policy Committee (GRPC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnership</td>
<td>NGO Committee (NGOC)</td>
<td>NGOC</td>
<td>PSC</td>
</tr>
<tr>
<td></td>
<td>Private Sector Committee (PSC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centers</td>
<td>Center Directors’ Committee (CDC)</td>
<td>CDC</td>
<td>Alliance Executive Alliance Board</td>
</tr>
<tr>
<td></td>
<td>Committee of Board Chairs (CBC)</td>
<td>CBC</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Impact Assessment Evaluation Group (IAEG)</td>
<td>PARC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public Awareness and Resource Mobilization Committee (PARC)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Strong et al 1998; World Bank 2003; www.cgiar.org

The Third System Review called for streamlining the committee structure. Indeed, there are fewer standing committees today than there were in 1997. Since 1998, the only addition to the standing committee structure is the Executive Council. There are no longer standing committees on oversight, program or finance. A Science Council replaced TAC. The NGO Committee has been inactive since 2002 and was dissolved in 2006. Alliance Executive and Alliance Board replaced the Center Directors’ Committee (CDC) and Committee of Board Chairs (CBC) respectively. The Impact Assessment and Evaluation Group (IAEG) is now part of the Science Council, in the form of the Standing Panel on Impact Assessment (SPIA). The Public Awareness and Resource Mobilization Committee (PARC) no longer exists. This report discusses the effectiveness of the existing committees in various chapters.

As the CGIAR has reduced the number of standing committees, some important functions of the CGIAR are not carried out adequately. Specifically, while the ExCo is charged with overseeing the System, dissolving of the ExCo Finance and Program Committees left the System without enough financial oversight (see Chapter 15 dealing with financial management). This is evidenced by the CGIAR’s decision at the 2007 AGM (AGM07) to
create an *ad hoc* Finance Committee of the ExCo. Chapter 7 also discusses the need for more strategic communications for the CGIAR, previously a responsibility of the Public Awareness and Resource Mobilization Committee (PARC).

Following recommendations of the Change Design and Management process, the CGIAR established the CGIAR System Office (SO) in 2001. The SO includes these units:

- CGIAR Secretariat (hosted by the World Bank)
- Science Council Secretariat (hosted by FAO)
- Alliance Office (currently housed by IFAD)
- Central Advisory Service on Intellectual Property (hosted by Bioversity)
- Chief Information Office/Information and Communication Technology–Knowledge Management (hosted by Bioversity)
- Gender and Diversity (hosted by the World Agroforestry Center)
- Strategic Advisory Service for Human Resources (no host Center identified at the time of this writing; previously hosted by WorldFish)
- Internal Audit (hosted by IRRI)
- Media Unit (hosted by ILRI)

While some of these units predate 2001, the CGIAR brought them together into a virtual System Office, to enhance efficiency, responsiveness and overall performance of each unit. At AGM07, the CGIAR decided on the following changes to the System Office:

- Transforming the Gender and Diversity Program into a System-Wide program
- Transferring the Human Resource unit’s function to the CGIAR Secretariat
- Removing the Science Council Secretariat from the System Office
- Transferring the Media Unit into the Communications Team (CGIAR Secretariat).

### 4.1.6 Conducting Business

The CGIAR conducts its business at an Annual General Meeting (AGM), usually in early December, and through the Executive Council (ExCo). The ExCo meets semi-annually and acts for the CGIAR between AGMs on matters the Group delegates to it.

Decisions taken at the AGM and at ExCo (when decision-making authority has been delegated to the ExCo on specific matters) are nonbinding. According to the Charter, “*decisions reached by the CGIAR have the force of commitment to the mission and objectives of the Group, though the CGIAR has no legal status. The Group’s decisions do not preempt policymaking on the same issue by sovereign governments or other institutions whose representatives form the CGIAR.*”
4.1.7 Financing

In 2007, the overall research agenda of the CGIAR (Centers and Challenge Programs) received $495 million US in funding. Other sources of revenue (e.g., interest) produced an additional $25 million US, for total revenue of $520 million US (see Figure 4.1.1). Of the $495 million US in contributions, CGIAR members contributed $437 million US (88.4 percent); non-members contributed the remaining $57 million US (11.6 percent).

While overall funding in nominal terms has continued to increase over the years, the buying power Centers experience has remained relatively flat when adjustments are made for inflation. At the same time, the research agenda has expanded (it now includes Challenge Programs, for example). Thus, the Centers (and their partners) are being asked to do more with less.

**Figure 4.1.1:** Restricted and Unrestricted Funding (Inflation-Adjusted 2007 Constant Dollars)


Quality and quantity of funding are also a question. The share of overall funding that is project-based (restricted), has risen in the past several years. In 2007, 36 percent of total funding was considered unrestricted, while 64 percent was restricted in its use by Centers. This is almost the exact reverse of the situation in 1995, when 63 percent of funding was unrestricted, and 37 percent was restricted. Chapter 15 also provides a detailed discussion of the implications of the shift toward restricted funding.

The European Community, the United States, the World Bank, and the United Kingdom rank as the top four contributors in 2007, with Canada a somewhat distant fifth. Together, those five donors alone accounted for exactly half of all contributions to the CGIAR research agenda in 2007. Contributions from developing country Members make up 3 percent of overall funding (see Chapter 15).
Contributions from non-members have risen steadily over the past few years. The $57 million US contributed by non-members in 2007 is a marked increase over the $4.6 million US in 1992 (1.4 percent of total). For 2008, CGIAR received a $106 million US grant, to be disbursed over three years, from the Bill and Melinda Gates Foundation. The foundation will rank among the top 10 contributors to the CGIAR, despite not being a member. This ranking will likely persist until the end of the grant period.18

Non-member funding varies widely across Centers. At the extremes, 22 percent of CIMMYT’s 2007 funding came from non-CGIAR Members, while non-members provided only 2.5 percent of ICARDA’s funding.

Table 4.1.4: Non-Member Funding by Center, 2007 (% of Total Funding Outcome)

<table>
<thead>
<tr>
<th>Center</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa Rice</td>
<td>4.9</td>
</tr>
<tr>
<td>Bioversity</td>
<td>4.4</td>
</tr>
<tr>
<td>CIAT</td>
<td>11.5</td>
</tr>
<tr>
<td>CIFOR</td>
<td>7.1</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>21.5</td>
</tr>
<tr>
<td>CIP</td>
<td>13.1</td>
</tr>
<tr>
<td>ICARDA</td>
<td>2.5</td>
</tr>
<tr>
<td>ICRISAT</td>
<td>11.2</td>
</tr>
<tr>
<td>IFPRI</td>
<td>15.9</td>
</tr>
<tr>
<td>IITA</td>
<td>12.6</td>
</tr>
<tr>
<td>ILRI</td>
<td>8.2</td>
</tr>
<tr>
<td>IRRI</td>
<td>5.2</td>
</tr>
<tr>
<td>IWMI</td>
<td>3.0</td>
</tr>
<tr>
<td>World Agroforestry</td>
<td>19.0</td>
</tr>
<tr>
<td>WorldFish</td>
<td>5.3</td>
</tr>
</tbody>
</table>


4.2 The Work of the Centers

The CGIAR currently supports 15 international agricultural research Centers. Except for two, all are located in developing countries throughout the world. For analytical purposes, they can be clustered in groups according to their mandates: commodity Centers, eco-regional Centers, natural resources management Centers, and policy Centers.19

Table 4.2.1: CGIAR Centers

<table>
<thead>
<tr>
<th>Commodity Centers</th>
<th>Headquarters’ Location</th>
<th>Est.</th>
<th>Joined CGIAR</th>
<th>2007 Funding Outcome (US$ million)</th>
<th>Mandate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa Rice-WARDA</td>
<td>Cotonou, Benin</td>
<td>1970</td>
<td>1975</td>
<td>10.2</td>
<td>Rice production in West Africa</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>Mexico City, Mexico</td>
<td>1966</td>
<td>1971</td>
<td>43.3</td>
<td>Wheat, maize, triticale</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Center</th>
<th>Headquarters’ Location</th>
<th>Est.</th>
<th>Joined CGIAR</th>
<th>2007 Funding Outcome (US$ million)</th>
<th>Mandate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP</td>
<td>Lima, Peru</td>
<td>1970</td>
<td>1973</td>
<td>26.0</td>
<td>Potato, sweet potato</td>
</tr>
<tr>
<td>ILRI</td>
<td>Nairobi, Kenya</td>
<td>1995</td>
<td>1995</td>
<td>35.2</td>
<td>Livestock diseases; cattle, sheep, goats; feed and production systems</td>
</tr>
<tr>
<td>IRRI</td>
<td>Los Banos, Philippines</td>
<td>1960</td>
<td>1971</td>
<td>32.5</td>
<td>Rice and rice-based ecosystems</td>
</tr>
</tbody>
</table>

**Eco-regional Centers**

<table>
<thead>
<tr>
<th>Center</th>
<th>Location</th>
<th>Year</th>
<th>Joined CGIAR</th>
<th>Outcome (US$ million)</th>
<th>Mandate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIAT</td>
<td>Cali, Colombia</td>
<td>1967</td>
<td>1971</td>
<td>45.1</td>
<td>Beans, cassava, tropical forages, rice; hillsides, forest margins, savannas</td>
</tr>
<tr>
<td>ICARDA</td>
<td>Aleppo, Syria</td>
<td>1975</td>
<td>1975</td>
<td>27.7</td>
<td>Barley, lentil, faba bean, durum and bread wheats, chickpea, pasture and forage legumes; small ruminants; on-farm water management; rangelands</td>
</tr>
<tr>
<td>ICRISAT</td>
<td>Patancheru, India</td>
<td>1972</td>
<td>1972</td>
<td>37.4</td>
<td>Sorghum, pearl millet, finger millet, chickpea, pigeon pea, groundnut; sustainable production systems for the semi-arid tropics</td>
</tr>
<tr>
<td>IITA</td>
<td>Ibadan, Nigeria</td>
<td>1967</td>
<td>1971</td>
<td>45.1</td>
<td>Soybean, maize, cassava, cowpea, banana, plantain, yams; sustainable production systems for the humid lowland tropics</td>
</tr>
</tbody>
</table>

**Natural Resources Management Centers**

<table>
<thead>
<tr>
<th>Center</th>
<th>Location</th>
<th>Year</th>
<th>Joined CGIAR</th>
<th>Outcome (US$ million)</th>
<th>Mandate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIFOR</td>
<td>Bogor, Indonesia</td>
<td>1993</td>
<td>1993</td>
<td>18.2</td>
<td>Sustainable forestry management</td>
</tr>
<tr>
<td>IWMi21</td>
<td>Colombo, Sri Lanka</td>
<td>1984</td>
<td>1991</td>
<td>23.5</td>
<td>Irrigation and water resources management</td>
</tr>
<tr>
<td>WorldFish23</td>
<td>Penang, Malaysia</td>
<td>1977</td>
<td>1992</td>
<td>15.1</td>
<td>Sustainable aquatic resources management</td>
</tr>
</tbody>
</table>

**Policy Centers**

<table>
<thead>
<tr>
<th>Center</th>
<th>Location</th>
<th>Year</th>
<th>Joined CGIAR</th>
<th>Outcome (US$ million)</th>
<th>Mandate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioversity24</td>
<td>Rome, Italy</td>
<td>1974</td>
<td>1974</td>
<td>39.0</td>
<td>Plant genetic resources of crops and forages; collection and gene pool conservation</td>
</tr>
<tr>
<td>IFPRI</td>
<td>Washington, DC, USA</td>
<td>1974</td>
<td>1980</td>
<td>46.4</td>
<td>Socio-economic research related to agricultural development [need to update to include ISNAR]</td>
</tr>
</tbody>
</table>

Source: OED 2003; [www.cgiar.org](http://www.cgiar.org); CGIAR Secretariat

### 4.2.1 Location of Regional and Country Offices

Collectively, the 15 Centers have over 200 regional or country offices in some 68 countries worldwide. Seventy-five percent of all regional or country offices are in sub-Saharan Africa (41 percent) and Asia/Pacific (34 percent). All Centers have offices in sub-Saharan Africa, and 13 have offices in Asia/Pacific. In contrast, only six Centers are present in CWANA and Latin America.
Table 4.2.2: Regional Offices

<table>
<thead>
<tr>
<th>Region</th>
<th># of Centers with Regional Offices</th>
<th># of Regional Offices</th>
<th># of Countries</th>
<th>Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>15</td>
<td>84</td>
<td>21</td>
<td>Benin, Burkina Faso, Cameroon, Cote d’Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, Guinea, Kenya, Malawi, Mali, Mozambique, Niger, Nigeria, Senegal, South Africa, Sudan, Tanzania, Uganda, Zambia, Zimbabwe</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>13</td>
<td>69</td>
<td>19</td>
<td>Bangladesh, Bhutan, Cambodia, China, Fiji, India, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, New Caledonia, North Korea, Philippines, Solomon Islands, South Korea, Sri Lanka, Thailand, Vietnam</td>
</tr>
<tr>
<td>Central Asia/West and North Africa</td>
<td>6</td>
<td>27</td>
<td>16</td>
<td>Afghanistan, Egypt, Georgia, Iran, Jordan, Kazakhstan, Lebanon, Morocco, Oman, Pakistan, Syria, Tunisia, Turkey, United Arab Emirates, Uzbekistan, Yemen</td>
</tr>
<tr>
<td>Latin America</td>
<td>6</td>
<td>16</td>
<td>8</td>
<td>Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Mexico, Nicaragua, Peru</td>
</tr>
<tr>
<td>Europe/North America</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>Belgium, France, Italy, United States</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-</td>
<td>203</td>
<td>68</td>
<td></td>
</tr>
</tbody>
</table>

Source: Personal communication with Center staff

Table 4.2.3: Number of Regional and Country Offices

<table>
<thead>
<tr>
<th></th>
<th>Africa</th>
<th>Asia/Pacific</th>
<th>CWANA</th>
<th>Latin America</th>
<th>Europe/ North America</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa Rice</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Bioversity</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>CIAT</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>CIFOR</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>CIP</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>ICARDA</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>ICRISAT</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>IFPRI</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>IITA</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>ILRI</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>IRRI</td>
<td>3</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>IWMI</td>
<td>4</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>World Agroforestry</td>
<td>16</td>
<td>7</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>WorldFish</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Personal communication with Center staff

Of the 203 regional or country offices throughout the world, Centers show that just over half share facilities, services or resources, or are hosted by other CGIAR Centers or national research partners.
4.2.2 Center Staff

Table 4.2.4: Centers’ Staffing, 2003 and 2008

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>7,651</td>
<td>7,716</td>
<td>146</td>
<td>136</td>
<td>925</td>
<td>1,020</td>
</tr>
<tr>
<td>Women</td>
<td>2,057 (27%)</td>
<td>2,225 (29%)</td>
<td>13 (9%)</td>
<td>25 (18%)</td>
<td>182 (20%)</td>
<td>267 (26%)</td>
</tr>
<tr>
<td>Part 2 Countries</td>
<td>6,843 (89%)</td>
<td>7,095 (92%)</td>
<td>67 (46%)</td>
<td>48 (35%)</td>
<td>533 (58%)</td>
<td>675 (66%)</td>
</tr>
</tbody>
</table>


In 2008, the Centers collectively employ 7,716 staff. Of these, 136 (2 percent) are managers and 1,020 (13 percent) are scientists. Twenty-nine percent of all staff are women, and 92 percent are from Part 2 countries (Eastern Europe and Central Asia, East Asia and the Pacific, South Asia, Latin America and the Caribbean, Middle East and North Africa, and Sub-Saharan Africa). The percentage of women in both management and science positions has risen since 2003. Diversity (staff from Part 2 countries) has risen among scientists since 2003, but has decreased among managers.

Table 4.2.4 reflects those scientists ranging in rank from Principal Scientist to Post-Doctoral Fellow. When the category is broadened to reflect all scientific staff (including Science Support Professionals and Science Support Technicians), the picture is similar. In 2008, there is a total of 3,315 scientific staff across the Centers, with 823 (24.8 percent) of them women and 2,932 (88.4 percent) from Part 2 countries. Women and staff from Part 2 countries now represent a larger percentage of total scientific staff than they did in 2003, when they accounted for 20.9 percent and 85.1 percent of total scientific staff, respectively.

4.2.3 Centers’ Public Goods Assets

Eleven CGIAR Centers collectively hold over 650,000 samples of crop, forage and agroforestry genetic resources in the public domain. These germplasm collections are held in trust for humanity through the International Treaty on Plant Genetic Resources for Food and Agriculture. The Treaty recognizes the CGIAR Centers’ collections as a central pillar of global conservation efforts. The collections, among the world’s largest, are arguably the most important anywhere for addressing global food security and poverty alleviation. A global public good, they are available to all researchers.

The Centers’ germplasm collections are complemented by several networks and databases operated by the Centers. They include, among others, the Systemwide Information Network for Genetic Resources (SINGER), the International Crop Information System (ICIS), and the Agricultural Science and Technology Indicators (ASTI) initiative. Two other CGIAR-supported databases, related to fisheries and coral reefs, are FishBase and ReefBase.
4.2.4 Center Governance

Each Center is an independent legal entity with its own governing board. In 2006, there were 188 board members across the 15 Centers. Of those, 59 percent came from developing countries, and 34 percent were women. The Boards of Trustees of the individual Centers meet independently according to a schedule set out in the bylaws of each Center.

The Alliance of CGIAR Centers conducts business through meetings of the Alliance Board and the Alliance Executive. The Alliance Board and Executive meet biannually, both separately and as a combined group. Decisions of the Alliance are made by consensus where possible and by vote when necessary. Alliance decisions are binding.

4.2.5 Center Funding

Chapter 15 on finance provides details on funding from 2000-2007 by Center. In 2007, IFPRI was the largest of the 15 Centers in budgetary terms ($46.4 million US), and Africa Rice was the smallest ($10.2 million US). Table 4.2.5 gives information about how overall funding across the Centers was distributed. In 2007, the Eco-regional Centers (see Table 4.2.5) accounted for the largest share (32.7 percent) of total funding. Commodity Centers, natural resources management Centers and policy Centers received 30.9 percent, 18.5 percent, and 17.9 percent of total funding, respectively.

Compared with 2001, the commodity Centers collectively declined in the share of overall funding, while the other three groups of Centers saw their funding shares increase. The policy Centers have seen the largest annual percentage growth in funding since 2000.

Individually, eight Centers experienced growth in their relative percentages of overall funding between 2001 and 2007: Bioversity, CIAT, CIFOR, ICRISAT, IFPRI, ILRI, IWMI, and World Agroforestry.

Table 4.2.5: Funding, by Center, 1992, 2001 and 2007 (as % of Total Funding)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity Centers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa Rice</td>
<td>41.1</td>
<td>36.7</td>
<td>30.9</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>9.8</td>
<td>11.9</td>
<td>9.1</td>
</tr>
<tr>
<td>CIP</td>
<td>6.5</td>
<td>5.7</td>
<td>5.5</td>
</tr>
<tr>
<td>ILRI</td>
<td>8.9</td>
<td>7.3</td>
<td>7.4</td>
</tr>
<tr>
<td>IRRI</td>
<td>12.9</td>
<td>9.2</td>
<td>6.8</td>
</tr>
<tr>
<td>Eco-regional Centers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIAT</td>
<td>10.1</td>
<td>8.3</td>
<td>9.5</td>
</tr>
<tr>
<td>ICARDA</td>
<td>5.7</td>
<td>6.4</td>
<td>5.8</td>
</tr>
<tr>
<td>ICRISAT</td>
<td>10.8</td>
<td>6.2</td>
<td>7.9</td>
</tr>
<tr>
<td>IITA</td>
<td>11.2</td>
<td>9.6</td>
<td>9.5</td>
</tr>
<tr>
<td>Natural Resource Management Centers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIFOR</td>
<td>1.0</td>
<td>3.7</td>
<td>3.8</td>
</tr>
</tbody>
</table>
4.2.6 Center Research and the CGIAR Research Agenda

In 2005, after an in-depth and consultative process, the Science Council presented 20 System Priorities (SP) for the CGIAR System for the period 2005-2015. The 20 SPs are clustered in five major areas:

- **Priority Area 1**: Sustaining biodiversity for current and future generations
- **Priority Area 2**: Producing more and better food at lower costs through genetic improvement
- **Priority Area 3**: Reducing rural poverty through agricultural diversification and emerging opportunities for high-value commodities and products
- **Priority Area 4**: Promoting poverty alleviation and sustainable management of water, land and forest resources
- **Priority Area 5**: Improving policies and facilitating institutional innovation to support sustainable reduction of poverty and hunger

In setting forth these priorities, the Science Council also allowed that up to 20 percent of Center research could (and should) be in the areas of frontier research, stand-alone training, and development activities, which are outside these priorities.

In 2007, the Centers’ Medium Term Plans collectively showed 137 major project areas, including individual Center projects, Challenge Programs and System-Wide programs.28

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IWMI</td>
<td>2.8</td>
<td>3.3</td>
<td>4.9</td>
</tr>
<tr>
<td>World Agroforestry</td>
<td>3.9</td>
<td>6.5</td>
<td>6.6</td>
</tr>
<tr>
<td>WorldFish</td>
<td>2.1</td>
<td>3.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Policy Centers</td>
<td>11.2</td>
<td>15.7</td>
<td>17.9</td>
</tr>
<tr>
<td>Bioversity</td>
<td>3.9</td>
<td>6.7</td>
<td>8.2</td>
</tr>
<tr>
<td>IFPRI</td>
<td>4.1</td>
<td>6.6</td>
<td>9.7</td>
</tr>
<tr>
<td>ISNAR</td>
<td>3.3</td>
<td>2.4</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Table 4.2.6: Centers’ Expenditure by Priority Area, 2007**

<table>
<thead>
<tr>
<th>System Priority Area</th>
<th>Millions US$</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustaining Biodiversity</td>
<td>60</td>
<td>12.3</td>
</tr>
<tr>
<td>Genetic Improvement</td>
<td>118</td>
<td>24.1</td>
</tr>
<tr>
<td>Diversification and High-Value Commodities</td>
<td>54</td>
<td>11.0</td>
</tr>
<tr>
<td>Integrated Natural Resource Management</td>
<td>109</td>
<td>22.3</td>
</tr>
<tr>
<td>Policies and Institutional Innovation</td>
<td>112</td>
<td>22.9</td>
</tr>
<tr>
<td>Sub Total</td>
<td>453</td>
<td>92.6</td>
</tr>
<tr>
<td>Development Activities</td>
<td>14</td>
<td>2.9</td>
</tr>
<tr>
<td>Stand-alone Training</td>
<td>9</td>
<td>1.8</td>
</tr>
<tr>
<td>New Research Areas</td>
<td>13</td>
<td>2.7</td>
</tr>
<tr>
<td>Sub Total</td>
<td>36</td>
<td>7.4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>489</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: 2008 Financing Plan
In 2007, Genetic Improvement represented the largest percentage of overall Center expenditures (24 percent), followed by Policies and Institutional Innovation (23 percent), Integrated NRM (22 percent), Sustaining Biodiversity (12 percent) and Diversification and High-Value Commodities (11 percent). Non-priority areas accounted for only about 7 percent of total expenditures. The extent to which this is an accurate representation of Centers’ work, or whether Centers have been reluctant to characterize expenditures as non-priority, is unclear.

Table 4.2.7: Center Expenditures by Undertaking, 1992-2007, US$ million

<table>
<thead>
<tr>
<th>Undertaking</th>
<th>1992</th>
<th>1992 % of Total</th>
<th>2001</th>
<th>2001 % of Total</th>
<th>2007 est.</th>
<th>2007 % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing productivity</td>
<td>127.4</td>
<td>49.3</td>
<td>123.3</td>
<td>34.8</td>
<td>178.5</td>
<td>37.1</td>
</tr>
<tr>
<td>Saving biodiversity</td>
<td>19.9</td>
<td>7.7</td>
<td>34.2</td>
<td>9.6</td>
<td>46.9</td>
<td>9.7</td>
</tr>
<tr>
<td>Protecting the environment</td>
<td>29.7</td>
<td>11.5</td>
<td>67.2</td>
<td>18.9</td>
<td>72.4</td>
<td>15</td>
</tr>
<tr>
<td>Improving policies</td>
<td>25.5</td>
<td>9.9</td>
<td>49.0</td>
<td>13.8</td>
<td>80.4</td>
<td>16.7</td>
</tr>
<tr>
<td>Strengthening NARS</td>
<td>56.1</td>
<td>21.7</td>
<td>81.1</td>
<td>22.9</td>
<td>103.2</td>
<td>21.4</td>
</tr>
</tbody>
</table>

Sources: Centers’ MTPs, 2008-10; ILRI MTP 2007-09; World Bank 2003 (OED Meta-Evaluation); 2001 Annual Report

Table 4.2.7 shows that Centers’ expenses were categorized slightly differently before the 2005 adoption of the System Priorities. While the CGIAR Secretariat no longer reports on these categories, the Centers still use them as a means to classify expenses in their MTPs. Thus, it is possible to make some comparison about the broad programmatic expense categories before and after the CGIAR adopted its System Priorities.

Table 4.2.7 shows Increasing Productivity accounts for by far the largest percentage of total expenditures. While expenditures in this category dropped significantly from 1992 to 2001, by 2007 they grew again, though not to their 1992 levels. While capacity building is not explicitly included in the System Priorities, expenditures in this area remain steady. Improving Policies has grown steadily since 1992, and Saving Biodiversity has remained constant in this decade after some growth in the 1990s. Protecting the Environment, on the other hand, grew substantially between 1992 and 2001, but has declined since. 29

Table 4.2.8: CGIAR Investments by Region (as % of Total)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>39</td>
<td>43</td>
<td>43</td>
<td>45</td>
<td>45</td>
<td>47</td>
<td>46</td>
<td>46</td>
<td>48</td>
</tr>
<tr>
<td>Asia</td>
<td>33</td>
<td>31</td>
<td>33</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>30</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Latin America and the Caribbean (LAC)</td>
<td>16</td>
<td>17</td>
<td>15</td>
<td>14</td>
<td>14</td>
<td>12</td>
<td>14</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Central and West Asia, and North Africa (CWANA)</td>
<td>12</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: Percentages restated in 2007 to exclude Challenge Program Partner expenses
4.2.7 System-Wide and Eco-regional Programs

Besides research undertaken by individual Centers, CGIAR research also includes inter-Center and System-Wide programs. Currently there are 17 System-Wide and Eco-regional Programs (see Section 8.2.6).

Table 4.2.9: System-Wide and Eco-regional Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Convening Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternatives to Slash and Burn (ASB)</td>
<td>World Agroforestry Center</td>
</tr>
<tr>
<td>Global Mountain Program</td>
<td>CIP</td>
</tr>
<tr>
<td>African Highlands Initiative</td>
<td>World Agroforestry Center</td>
</tr>
<tr>
<td>Collaborative Research Program for Sustainable Agricultural Development in Central Asia and the Caucasus</td>
<td>ICARDA</td>
</tr>
<tr>
<td>Desert Margins Program</td>
<td>ICRISAT</td>
</tr>
<tr>
<td>Rice-Wheat Consortium for the Indo-Gangetic Plains</td>
<td>CIMMYT</td>
</tr>
<tr>
<td>Consortium for the Sustainable Development of the Andean Eco-region (CONDESAN)</td>
<td>CIP</td>
</tr>
<tr>
<td>System-Wide Initiative on Urban and Peri-Urban Agriculture</td>
<td>CIP</td>
</tr>
<tr>
<td>Consortium for the Sustainable Use of Inland Valley Agroecosystems in sub-Saharan Africa (IVC)</td>
<td>Africa Rice Center</td>
</tr>
<tr>
<td>Participatory Research and Gender Analysis (PRGA)</td>
<td>CIAT</td>
</tr>
<tr>
<td>System-Wide Initiative on HIV/AIDS (SWIHA)</td>
<td>Africa Rice Center</td>
</tr>
<tr>
<td>System-Wide Initiative on Water Management (SWIM)</td>
<td>IWMI</td>
</tr>
<tr>
<td>System-Wide Genetic Resources Program (SGRP)</td>
<td>Bioversity</td>
</tr>
<tr>
<td>System-Wide Livestock Program</td>
<td>ILRI</td>
</tr>
<tr>
<td>System-Wide Program on IPM</td>
<td>CIP</td>
</tr>
<tr>
<td>System-Wide Program on Collective Action and Property Rights (CAPRI)</td>
<td>IFPRI</td>
</tr>
<tr>
<td>System-Wide Program on Malaria and Agriculture</td>
<td>IWMI</td>
</tr>
</tbody>
</table>

Source: http://www.cgiar.org

Besides these, the Centers also collaborate on a handful of other initiatives such as the System-Wide Information Network for Genetic Resources (SINGER) and the Consortium for Spatial Information.

4.3 Challenge Programs

Following a recommendation from the Change Design and Management Team (CDMT), the CGIAR created its Challenge Programs for collaborative research in 2003. A CGIAR Challenge Program is a “time-bound, independently-governed program of high-impact research that targets the CGIAR goals in relation to complex issues of overwhelming global and/or regional significance, and requires partnerships among a wide range of institutions in order to deliver its products.”30 Challenge Programs were added to the existing work and financing of the Centers. The CDMT envisioned that within five years, CGIAR financing would expand significantly and Challenge Programs would account for 50 percent of overall CGIAR financing.31
Initially, the CGIAR launched three Challenge Programs: Water and Food; Generation; and HarvestPlus. At its AGM in 2004, the CGIAR approved a fourth Challenge Program, the Sub-Saharan Africa CP. All four CPs are currently underway. (See Section 8.2 for a detailed analysis of the Challenge Programs.)

With the exception of the SSA-CP, which is convened by the Forum for Agricultural Research in Africa (FARA), different CGIAR Centers convene the CPs. Each Challenge Program has an independent governing board.

### Table 4.3.1: Challenge Program Project Summaries

<table>
<thead>
<tr>
<th>Challenge Program</th>
<th>Convening Center/Organization</th>
<th>Year Established</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation</td>
<td>CIMMYT</td>
<td>2003</td>
<td>to use plant genetic diversity, advanced genomic science and comparative biology to develop tools and technologies that help plant breeders in the developing world produce better crop varieties for resource-poor farmer</td>
</tr>
<tr>
<td>HarvestPlus</td>
<td>CIAT, IFPRI</td>
<td>2003</td>
<td>to improve human nutrition by breeding new varieties of staple food crops consumed by the poor that have higher levels of micronutrients, through a process called biofortification</td>
</tr>
<tr>
<td>SSA</td>
<td>FARA</td>
<td>2003</td>
<td>to address the most significant constraints to reviving agriculture in Africa, i.e., failures of agricultural markets, inappropriate policies and natural resource degradation with a new paradigm, Integrated Agricultural Research for Development (IAR4D)</td>
</tr>
<tr>
<td>Water and Food</td>
<td>IWMI</td>
<td>2004</td>
<td>to improve the productivity of water in river basins in ways that are pro-poor, gender equitable and environmentally sustainable</td>
</tr>
</tbody>
</table>

Source: http://www.cgiar.org

The CGIAR reports that revenues for the Challenge Programs totaled $48 million US in 2007. (CGIAR practice is to count revenue only when the funds have been spent.) Such revenue for the history of the Challenge Programs is described in Table 4.3.2. Challenge Program financing can also be viewed based on cash receipts recorded in total by the convening Center each year. In this way, Table 4.3.3 reflects actual funding available to the individual CPs from 2004-2007.

### Table 4.3.2: Revenue Reported by the CGIAR, For All Challenge Programs (US$ millions)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGIAR</td>
<td>14</td>
<td>25</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td>Partners</td>
<td>5</td>
<td>10</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>35</td>
<td>40</td>
<td>48</td>
</tr>
</tbody>
</table>

Note: Total revenue and expenditures not reported in aggregate for 2003 (only cash basis receipts)
Table 4.3.3: Funding Available to Challenge Programs, 2003-2007 (US$ millions)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation</td>
<td>19.1</td>
<td>13.6</td>
<td>9.5</td>
<td>23.5</td>
</tr>
<tr>
<td>HarvestPlus</td>
<td>3.9</td>
<td>15.5</td>
<td>12.1</td>
<td>19.6</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>4.7</td>
<td>0</td>
<td>3.5</td>
<td>7.8</td>
</tr>
<tr>
<td>Water and Food</td>
<td>9.4</td>
<td>9.3</td>
<td>8.4</td>
<td>17.1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37.1</td>
<td>38.4</td>
<td>33.6</td>
<td>68</td>
</tr>
</tbody>
</table>


The Challenge Programs have unquestionably brought new funding to the CGIAR. How much is unclear and is nearly impossible to see. For example, funding to the Challenge Programs by the Bill and Melinda Gates Foundation is clearly new funding. However, it appears that some donors have shifted at least a portion of their contribution away from Centers to Challenge Programs, as is the case with the World Bank, for example (see Chapter 8).

4.4 Capacity for Strategic Planning

4.4.1 Introduction

Strategic planning in large, decentralized, multi-stakeholder organizations is a complex process that demands a combination of approaches, methods and techniques. This is the case when dealing with research organizations, whose activities and products involve a rather high degree of uncertainty in comparison with other productive and service activities. In a network such as the CGIAR, comprised of 15 research Centers supported by a constellation of donors and with other stakeholders involved in its operation, and in which there are no formal System-Wide binding decision-making authorities, strategic planning for the organization as a whole becomes a daunting task.

Stripped to its essence, planning is anticipatory decision making. It consists of anticipating situations and deciding what to do if the anticipated future situations or events occur. As time passes, management transforms anticipatory decisions into actual ones. Decisions then recede into the background and the organization moves on to face the consequences. Monitoring and evaluating are the processes by which expectations about the outcomes of anticipated decisions (plans) are contrasted with the results of actual decisions. Monitoring is continuous and follows the course of events as anticipatory decisions are transformed into actual ones, while evaluating is intermittent to assess the degree to which anticipated results, outcomes and impacts correspond with those achieved in practice. Decisions in a system or organization can be grouped into five categories:

(i) vision and mission (values, long-term objectives);
(ii) interactions and relations with its organizational environment (partnerships, collaboration, competition, synergies);
(iii) institutional arrangements (organizational structure, incentives, rules, processes, behavior);
(iv) activities (priorities, sequence, tradeoffs); and
(v) resources (financial, human, physical, time, attention).

An organization’s capacity for strategic planning refers to:

- the set of anticipatory decision-making skills and capabilities of its members, particularly of its managers and leaders;
- the habits of interaction and communication among key players in the organization regarding anticipatory and actual decision making;
- formal and informal processes that regulate these interaction and communication patterns;
- the availability of relevant and timely information regarding the performance of the organization; and
- the effectiveness with which anticipatory and actual decisions derived from strategic planning are linked and feed into other management processes in the organization (resource allocation, human resources, logistics, marketing, and so on).

Planning at the CGIAR takes place at two levels: at the Center level and at the System level. Box 4.4.1 provides a list of the key concepts that are used in CGIAR planning processes.

**Box 4.4.1: Management Processes at the CGIAR – Definitions and Brief Description**

<table>
<thead>
<tr>
<th>Management Processes at the CGIAR – Definitions and Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planning Context:</strong> Periodically assessing the needs of CGIAR client group for services from the CGIAR in context of emerging developments in science, trends in global economy and the economies of developing countries, and availability of capacity in CGIAR partners and stakeholders. This would serve to update the CGIAR’s vision, strategy and priorities, and as a basis for resource allocation across the System.</td>
</tr>
<tr>
<td><strong>CGIAR Planning Guidance:</strong> Based on the context, planning guidelines describe objectives and proposed deliverables for the CGIAR, areas and activities of more and less emphasis, changes in modes of operation and provide a broad assessment of required human and financial resources. The document provides planning guidance to Centers in preparing their medium term plans.</td>
</tr>
<tr>
<td><strong>CGIAR Medium-Term Plans (periodic):</strong> Based on the guidance provided by the CGIAR and their own strategic plans, Centers (and challenge programs as appropriate) prepare program and business plans on a rolling three-year basis. The CGIAR medium term plan is an aggregation of Center medium term plans.</td>
</tr>
<tr>
<td><strong>CGIAR Project Portfolio:</strong> A basic program-planning unit in Center plans is a logical framework based portfolio of projects. The projects describe specific objectives, identify collaborators and partners, define deliverables and provide required budgets. The CGIAR Project Portfolio is a consolidated portfolio of Center and CP project portfolios.</td>
</tr>
<tr>
<td><strong>CGIAR Annual Operating Plan:</strong> Centers prepare more detailed operating plans annually to develop work programs, plan activities and resource outlays. The plans identify deliverables for the year. These are reviewed and approved by the Boards of Centers or the governing bodies of CPs. The CGIAR annual plan is an aggregation of Center operating plans.</td>
</tr>
<tr>
<td><strong>CGIAR Annual Financing Plan:</strong> Financing plans identify sources of financing for the operating plans and, in case of a...</td>
</tr>
</tbody>
</table>
4.4.2 Strategic Planning at the CGIAR Centers and Challenge Programs

At the Center, strategic planning follows well-established procedures defined by the System Office. The key instrument for these procedures is the rolling three-year Medium-Term Plans (MTPs) to implement research agendas. The Science Council and CGIAR Secretariat review the MTPs against CGIAR’s priorities and strategies, and progress in science and funding opportunities. Each Challenge Program (CP) is also requested to submit an MTP and financing plan.

The MTPs cover all CGIAR research activities. These plans are output-focused and use a logical framework to establish the links from outputs through outcomes to impacts. This research agenda, as approved by the CGIAR, is eligible for financing by Members and other donors or investors, and should be consistent with the financial resources the Center or CP considers likely to be available to carry out the plan. Each Project is to be costed to assist management in policy decisions. The annual Work Plan is the first year of the rolling MTP and is accompanied by a financing plan. The MTP, including the logical framework, is a central element in the evaluation of research and program relevance to the 20 CGIAR System Priorities.

Financial management procedures at the CGIAR cover all aspects of finance: (a) planning and budgeting, (b) managing oversight, (c) monitoring, (d) reporting, and (e) resource mobilization. The Financial Management Guideline prepared by the System Office sets out broad principles and guidelines and provides a snapshot of best financial management practices in the Centers. This snapshot is presented in the form of a framework that goes beyond the more formalistic fiduciary and control oriented nature of traditional financial management to embrace performance, efficiency and effectiveness. The CGIAR Financial Management Cycle divides financial management activities into four main elements: (1) financial planning, (2) resource allocation, (3) monitoring and internal reporting, and (4) external financing reporting (Box 4.4.2).
Financial management is the set of activities by which a Center manages its finance. Includes four main elements

1. **Financial Planning**: High-level activities that Centers undertake to estimate their resource needs and develop plans for how they will obtain those resources. Includes:
   a. **Strategic Plan**: The strategic plan establishes the long-term direction of a Center and the scope of its activities. The Center matches its resources to its changing business environment and the needs of its stakeholders. Center Finance departments prepare financial information for input into the Center’s strategic plans and, often through an iterative process, ensure that proposed activities and projected financing needs are in line. The Board of Trustees should periodically review the strategic plan. The financial management system should assist in ensuring that the long-term strategy of a Center is linked to day-to-day budgets and operational decisions.
   b. **Medium Term Plans (MTP)**: It is the main instrument for operationalizing the Center’s approved Strategic Plan. The CGIAR follows a forward planning horizon of three years for the implementation of the research agenda. The research agenda is reviewed and adjusted in the context of the CGIAR’s priorities and strategies, progress in science and funding opportunities. The annual Work Plan is the first year of the rolling MTP. MTP includes a Project Portfolio that provides the programmatic content of the work plan and links it to the Center’s strategy and CGIAR priorities. In addition it consider a Financial Plan that content a full costing of the Project Portfolio at the time of preparing the MTP, and the financing source for the first year.
   c. **Annual Financial Plan**: After presenting its three year rolling plan, each CGIAR Center is required to present a detailed and realistic forecast of the financial resources that it believes will be available to finance the first year of the rolling three-year MTP. Center financing plans are approved as part of an overall CGIAR Financing Plan at the CGIAR’s Annual General Meeting.

2. **Resource Allocation**:
   a. **Annual Operating Budget**: Simultaneous with the preparation of the annual financing plan, detailed budgets are prepared for each of the Center activities and service units for the coming year. Each Center prepares a detailed schedule setting out expected income (both donor and Center generated) for the coming year. This process includes planning, resource allocation, forecasting, performance measurement and control.
   b. **CGIAR Budget Cycle**: The key processes of the financial decision making cycle are as follows:
      - **Setting the Agenda (January)**: On the basis of the CGIAR-approved priorities the Science Council (SC) and CGIAR Secretariats issue to the Centers the guidelines for preparing the following year’s detailed work plans, budgets and financing plans, and for extending (rolling) the MTP into the next third year.
      - **Preparation of the MTPs and Financing Plans (February to June)**: Centers prepare their detailed work plans and budgets and, on the basis of interactions with CGIAR Members and other partners, prepare detailed financing plans to support the work plan (and the related project portfolio) and budget for the upcoming year (the first year of the new MTP period). They also update their MTPs, or prepare new ones, as necessary. Following this, the FP and MTP are submitted to the SC and CGIAR Secretariats for review.
      - **Confirmation of the Program Content by the Science Council (September)**: The objective of the SC’s review is to ensure consistency of the MTP and annual work plan with the approved priorities. Concurrently, the CGIAR Secretariat jointly with a collaborating Center (rotated periodically), reviews the financial content of the submissions, to ensure alignment of the programmatic content with the resources that are expected to finance the first year of the MTP. The financial review also looks at the projected cost of the second and third years of the MTP period for reasonableness (detailed financing projections are not required for these two years). The programmatic and financial reviews are summarized for ExCo’s review during its fall meeting.
      - **Review of Financing Plans and MTPs by the CGIAR Executive Council (ExCo) (October)**: ExCo reviews the programmatic and financial summaries, receives clarifications from Centers through the SC and CGIAR Secretariats, and recommends adjustments to the proposals, as necessary. It then recommends the FP and MTPs to the CGIAR for approval at the upcoming CGIAR Annual General Meeting (AGM).
      - **Group Approval of FP and MTP at AGM (December)**: Based on ExCo’s recommendation and their discussion at AGM, the Consultative Group approves the CGIAR Financing Plan (comprised of...
Financial management is the set of activities by which a Center manages its finance. Includes four main elements

- **Disbursement and Implementation**: Centers begin implementation of the approved work plan for the new financial year and CGIAR Members and other financial supporters begin disbursement of financial resources. Concurrently, a new planning cycle and reporting on the activities for the year just ended are launched.

- **Annual Capital Budget**: In addition to preparing annual operating budgets, Centers prepare annual physical capital budgets. The budgets indicate a Center’s capital needs for the coming year and are prepared in the context of longer-term needs. These needs will have been addressed in the Center’s strategic plan and MTP. Like the annual operating budget, the annual capital budget should be prepared from the bottom up but with guidance from senior management. Capital budgets should be presented by program/project and by administrative service unit cost Center. Centers should situate their annual capital budget within the context of a three to five-year capital planning horizon. As a rule of thumb, Centers should aim to renew their capital base by an amount approximately equal to the annual depreciation charge.

- **Cash Flow Analysis**: An essential element is to ensure that the Center has sufficient cash to meet its obligations on a day-to-day basis. This requires monitoring and forecasting cash flows from both income and expenditure streams. An annual cash flow analysis should be prepared for at least a twelve month horizon and updated regularly throughout the year.

3. **Management Monitoring and Internal Reporting**:
   a. **Financial Information System**: Each Center governs its Information and Communications Technology (ICT) policies and management, but there is a growing trend of collective action, harmonization and shared services among the Centers concerning ICT. This agenda is promoted by the CGIAR Chief Information Officer (CIO) and the Center ICT Manager community.
   b. **Internal Control Framework**: Internal control is broadly defined as a process - affected by the Center’s Board of Trustees, management and other personnel - designed to provide reasonable assurance regarding the achievement of the Center’s objectives in effectiveness, efficiency and economy of operations, reliability of financial reporting, and compliance with applicable laws and regulations.
   c. **Internal Audit**: As well as providing services to individual Centers, the CGIAR Internal Auditing Unit - as a CGIAR System Office unit - provides professional leadership to the network and internal audit services for CGIAR System-Wide programs and initiatives; coordinates internal audit activities with other review activities and special initiatives within the System; and works closely with the other System Office units to promote good governance, risk management, internal control and accountability within the CGIAR System. Internal audit services are conducted in accordance with medium term and annual work plans.
   d. **Performance Measurement and Monitoring Financial Health**: The PM System is designed to serve multiple purposes, but the primary objective is to promote and enhance Center performance and accountability. It will be an important tool for performance management used by the Centers to stimulate learning and change and serve as an input to decision-making by CGIAR Members and the CGIAR System.
   e. **Treasury Management**: Treasury management is concerned with managing short term liquid assets (i.e., ensuring there is sufficient cash to run operations on a day-to-day basis), investment management (i.e., investing surplus cash so as to maximize investment returns while staying within acceptable risk parameters), and management of foreign currency transactions.
   f. **Management Financial Reporting**: The main objective of internal financial reporting is to help the Center management plan and monitor their financial performance against agreed objectives and achieving internal performance targets. The Centers’ responsibility for book keeping, accounting and financial reporting rests with the finance division.

4. **External Financial Reporting**: The primary financial report prepared by Centers is the annual financial statement. A public accounting firm independently audits these statements. The principal objective of the audit is to provide assurance to the Board of Trustees, CGIAR Members and other existing or potential donors to the Center, and other stakeholders, that the statements accurately presents the financial results of a Center for the year, its financial position at the year end, and its cash flows during the year. Regulations with regard to the audit of annual financial statements are found in Audit Policies and Procedures.

Besides the MTP and the financial management processes, CGIAR Centers also have a Performance Measurement System that assesses Center performance along three dimensions: results, potential to perform, and stakeholder views. This Performance Measurement System is a diagnostic tool to understand the current performance status of each CGIAR Center against a set of indicators. It provides Centers a tool to better understand their own performances and demonstrate accountability.

The Performance Measurement System is specifically used as: (i) a learning tool for a Center’s own performance management and benchmarking with its sister Centers where possible; (ii) a tool for demonstrating accountability and transparency to CGIAR stakeholders; (iii) a monitoring and evaluation instrument complementing External Program and Management Reviews (EPMRs) and Center-Commissioned External Reviews (CCERs); (iv) a tool to enable a better understanding of CGIAR System performance; and (v) an early warning system to alert the CGIAR to any problems and weaknesses annually and by it to allow the rapid implementation of countermeasures. In addition, it is used as an input in CGIAR member fund allocation decisions. Reporting on performance results is a standard section in the CGIAR Annual Report and in most Center Annual Reports.

The CGIAR Performance Measurement System is based on self-assessment by Centers, selectively corroborated through a mechanism managed by an external expert in collaboration with the CGIAR Internal Audit Unit. In addition, the CGIAR has established a tradition of External Program and Management Reviews (EPMRs) to provide a mechanism of transparency and accountability to the Members and other stakeholders of the CGIAR System. EPMRs are the joint responsibility of the Science Council (SC) and the CGIAR Secretariat, and are conducted for each Center roughly every five years. As each Center is autonomous, EPMRs provide a measure of central oversight and serve as an essential component of the CGIAR’s accountability system.

### 4.4.3 System-Wide Strategic Planning at the CGIAR

Even though Center level strategic planning activities are the most developed and main components of the CGIAR planning system, there are several overall planning efforts that provide a certain degree of overall planning coherence to the CGIAR. These include the strategic planning and development support activities of several units in the System Office, and particularly the CGIAR, Alliance and Science Council Secretariats (other System Office Units are also involved in some of these support activities). However, even though these activities have important implications for all the Centers, especially for resource allocation and financing from donors, from a formal legal perspective they do not generate binding commitments for all CGIAR Centers, donors and other stakeholders.

System-Wide strategic planning activities at the CGIAR have two sides: first, they are the result of aggregating Center strategic plans and the anticipatory decisions of which they
consist. Thus they provide an overview of the directions in which the CGIAR is moving, but, with the rather general and limited exception of the “System Priorities” defined by the Science Council, they are not the result of a concerted effort to construct a common framework for strategic decision-making at the CGIAR. Second, the methodological, information and operational support the System Office provides by help to align the strategic plans of the different Centers and to achieve a certain degree of coherency between them. The System Office also provides support for the monitoring and evaluation activities of the Centers, as well as for impact assessment, which can be considered as part of System-Wide strategic planning efforts.

In 2007 the System Office undertook activities in four “service clusters” in the strategic planning and development category: system priorities, reform program, organizational health and partnerships (Table 4.4.3). However, most of these service activities were specific and, with the exception of those related to Framework Plans for System Priorities and support to the MTP development processes, do not convey the idea there is an overall System-Wide strategic planning process to chart a common path for the evolution of the CGIAR.

Table 4.4.3: System Office – Strategic Planning and Development Highlights (2007)

<table>
<thead>
<tr>
<th>Service Cluster</th>
<th>Unit</th>
<th>Strategic Planning and Development (SP&amp;D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Priorities</td>
<td>SC Sec, AO, CIO CGIAR Sec, CAS-IP</td>
<td>Development of Framework Plans for System Priorities (e.g. organization of planning workshop, on-line discussion platform)</td>
</tr>
<tr>
<td></td>
<td>CGIAR Sec, AO, SC Sec, CIO</td>
<td>Support to Member coordination for funding System Priorities (including follow-up to Member Coordination Forum at AGM06, integrated window for investment opportunities)</td>
</tr>
<tr>
<td>Reform Program</td>
<td>SG Sec/SC Sec/ AO</td>
<td>Support to Center Alignment exercise, including mobilization of Resources</td>
</tr>
<tr>
<td></td>
<td>SG Sec/SC Sec</td>
<td>Coordinate CP process, including the call and selection of the new batch of CPs</td>
</tr>
<tr>
<td>Organizational Health</td>
<td>SC Sec, CIO, and CGIAR Sec</td>
<td>Support the MTP development process, and increased alignment of the programmatic and financing plans towards common platform</td>
</tr>
<tr>
<td></td>
<td>SAS-HR (lead), G&amp;D and CGIAR Sec, CIO</td>
<td>Design of an integrated approach to Center staff development</td>
</tr>
<tr>
<td>Partnerships</td>
<td>CG Sec/ AO/CAS-IP</td>
<td>Strengthen relationships with private sector through PSC</td>
</tr>
<tr>
<td></td>
<td>CGIAR Sec/ SC Sec/ CIO/ AO</td>
<td>Strengthen CGIAR relationship with CSOs which share the CGIAR mission: Competitive Grants Program, Innovation Marketplace</td>
</tr>
</tbody>
</table>


While it may be argued that other documents and processes, for example, the Charter and the System Priorities, provide a common perspective on the vision and mission of the CGIAR, these do not provide a coherent and cohesive set of operational guidelines to explore strategic options and to develop a framework for strategic choices. Without a framework, it is difficult to achieve synergies and capitalize the comparative advantage of
the CGIAR in the provision of agricultural research, international public goods and in other related activities.

While the System Office, and in particular the CGIAR, Alliance and Science Council Secretariats, provide support for the strategic planning and development activities of the Centers, there is also the question of how should the activities of the System Office be planned and organized. A recent review of the System Office concluded that:

“… the SO should become more strategic and develop a strategic plan. However it would be difficult under present conditions to prepare an overall strategic plan for the SO. It would require a much more elaborate process of consultation to make a plan demand driven. The SO units are often small and there are many areas where there is limited potential to contribute to a broader strategy. Some are ongoing service activities that couldn’t easily be changed such as the three pillar secretariats that support obligations to their stakeholders.”

Thus it appears that it is difficult, not only to organize and conduct a strong System-wide strategic planning process for the CGIAR as a whole, but also to plan and manage the System Office that provides services to it in a strategic manner. (The Panel provides a more detailed treatment of the System Office in Chapter 13.)

Finally, the System Priorities developed by the Science Council, because of the reform process began in 2001, had the objective of moving from a Center-based to a programmatic research system, creating a clear strategy to deliver the CGIAR mission and engaging external partners more effectively in this process. As Section 12.1 (System Priorities) of this report shows, even though the Centers have demonstrated increasingly their capacity to work together in a programmatic fashion, the System Priorities have not led to the development of a clear strategy for the CGIAR to achieve its mission by defining System-Wide priorities, organizing research activities and deploying resources accordingly. The Challenge Programs achieve this to a limited extent by focusing on a few strategic issues, but are not linked to an overall CGIAR strategy.

4.4.4 Concluding Remarks

CGIAR Centers and the System Office have developed and put in place strategic planning processes at the Center level and, to a lesser extent, for the CGIAR as a whole. There is not yet an overall process capable of making anticipatory decisions that would adequately and effectively steer the course of CGIAR evolution during the next few years. The state of CGIAR governance, management and performance, as well as the challenges and opportunities posed and offered by the international context for international agricultural research, demand improved System-Wide strategic planning capabilities, which should be part of governance reforms.


4.5 Character of the CGIAR “System”

The CGIAR has evolved from four independent Centers and 17 members to a group that now comprises 15 autonomous Centers and 64 members. In addition, the CGIAR now has several other institutional components such as the CGIAR Secretariat, the Science Council, the Alliance of Centers, and the Executive Council. It is often referred to as the “CGIAR System”. This reference is misleading. It assumes the different entities interact in organized or coherent ways and that the ‘group’ is configured in such a way to heighten interactions, positive feedback and production. Reference to the CGIAR as a “system” also assumes there is one identifiable central authority that has some resemblance of a legal person. This is not the case. In fact there is no cognitive structure and legal personality. Other definitions of a system include shared objectives and concrete performance measures.37 The CGIAR is not a system. It is a group.

The CGIAR is characterized by many different cultures of different institutions of different ages. It is a complex institutional arrangement that has evolved over the last 37 years in the realm of international agricultural research. The complexity is largely generated by its own structural set-up. There are 15 different Center Boards, each with decision-making powers; the ExCo; the CGIAR Secretariat; the Alliance Office; and the individual Centers’ management. As this evaluation will show, the structural set-up and lack of institutional authority of the CGIAR constrains the decision-making processes and implementation of reform in the CGIAR.

The CGIAR’s complexity is also related to and may be caused by its diversity. The 15 Centers are different species of organizations that have different purposes and foci. Some Centers are dedicated to agricultural and biodiversity policy research (e.g., IFPRI and Bioversity), others focus on scientific research on specific crops (e.g., IRRI, CIMMYT, CIAT, CIP, WARDA and ICRISAT), while yet others work on developing natural resource management practices (e.g., World Agroforestry). ILRI focuses on livestock, while the WorldFish Center’s mandate is research on fish and research for the improvement of fish genetics and production. CIFOR mainly works on forest policy and governance. IITA works on a range of tropical crops. There are of course other Centers working on other issues.

The 15 Centers are located in different parts of the world. The specific crop (or commodity) research Centers are mainly hosted by Asia and Latin America though they have outposts and programs in Africa. Two policy research Centers are headquartered in the United States and Europe. The location of the Centers influences their cultures and organization in many ways.

The CGIAR’s diversity is also reflected in its 64 Members. Some are multilateral (e.g., the World Bank and the EC) and others are bilateral. There are also member governments that
are not necessarily donors. And there are private foundations (e.g., Rockefeller Foundation, Syngenta Foundation). These donors have different cultures with different goals as well as different funding requirements. They do not necessarily articulate together as members of the CGIAR.

Another key characteristic of the CGIAR is uncertainty. Importantly, there is uncertainty regarding funding. As this review will show, funding for the CGIAR has been declining in qualitative terms. It is unpredictable and increasingly restricted. This is causing uncertainty in the programs and governance of the individual Centers and the group as a whole. Related to the funding uncertainty is the uncertainty of the reform agenda. In the last decade, the CGIAR has been engaged in different forms of normative and structural reforms. The Centers and the CGIAR have invested in reform. While in some areas there may be success, on the whole the reform of the CGIAR is on a protracted and largely uncertain course (See Chapter 13). There is continuous search for change and an aura of uncertainty about the future of the CGIAR.

The uncertainty is also associated with major changes and developments in the CGIAR’s external environment. Thirty-five years ago the CGIAR was one of the largest investors in agricultural research in the developing world. Today there are many larger and influential public (including some of the NARS of the South) and private sector investors in research and technology development. In addition, the nature and conduct of agricultural research are influenced by many non-research groups including CSOs in ways beyond the anticipation and control of the CGIAR. There is also the lack of international policy clarity and consensus on the role of modern biotechnology in food and agricultural production. These situations are increasing uncertainty in the CGIAR.

On the whole, the CGIAR is today characterized by increasing complexity, both cognitive and structural, diversity in membership, funding and organization, and the growing or increasing uncertainty associated with changes in both internal and external environments of the CGIAR.
Notes

3 The current mission statement was adopted at the Group’s Mid-Term Meeting in Dresden in 2000.
7 In 2006, the following members were not in good standing: African Development Bank, Bangladesh, Cote d’Ivoire, Gulf Cooperation Council, Indonesia, InterAmerican Development Bank, Kellogg Foundation, Malaysia, Pakistan, Philippines, Portugal, Romania, Russian Federation, Thailand, and Uganda. In 2007, all but four (African Development Bank, Gulf Cooperation Council, Portugal and Uganda) were still in arrears and remained in “Member Observer” status. Source: CGIAR Secretariat.
9 The World Bank, FAO, and UNDP were founding Co-sponsors. From 1994-2000, the United Nations Environment Program was also a Co-sponsor. IFAD became a CoSponsor in 2001.
11 In 1998, the Centers created the Future Harvest Foundation as a non-profit corporation in an effort to reach out to new constituencies and increase the funding base of the Centers and their strategic work. The Future Harvest Foundation was dissolved in 2004.
12 Engagement with civil society now takes place through dialogue processes and ad hoc representation at CGIAR meetings.
13 There have been a small number of new committees added at various times, that were then eliminated. For example, the Consultative Council, following the Third System Review, and the Science Partnership Committee.
14 The ad hoc Committee on Finance was created at AGM07, with the agreement that it would exist until December 31, 2008.
15 Whether or not the PARC carried out its functions effectively is not dealt with in this evaluation.
17 Note that the EC contribution is somewhat distorted, in that a large part of their 2006 contribution was disbursed and recorded in 2007.
18 Note that the CGIAR reports funding during the year it is expensed, so it appears that the Gates Foundation contributed US $23 million in 2007. However, the Gates Foundation actually made cash contributions to the Centers in the amount of US $43 million.
19 The Panel has chosen here to use the same classification as the 2003 OED Meta-Evaluation. This will facilitate analysis of trends in programming and financing over time.
20 ILRI was created in 1995 through the merger of the International Laboratory for Research on Animal Diseases and the International Livestock Center for Africa, originally established in 1973 and 1974, respectively.
21 Formerly the International Irrigation Management Institute (IIMI)
Chapter 4 The CGIAR and its Affiliated Centers
CHAPTER 5
INTERNATIONAL ARCHITECTURE FOR AGRICULTURAL RESEARCH FOR POVERTY REDUCTION

5.1 Introduction and Early History

Concern for an appropriate institutional architecture for agricultural development, nutrition and poverty reduction dates to at least the 1930s. Responding to the global economic depression of the 1930s, the League of Nations in 1935 established a commission to define the architecture to address malnutrition. Its final report in 1937 called for new institutional arrangements. Follow up to the report was interrupted by World War II, but in 1945 the report guided the foundation of the Food and Agriculture Organization (FAO) of the United Nations.

The League of Nations report argued that international food security and nutrition adequacy required an institutional architecture that looked beyond immediate issues of food production and adequacy to the social, political and economic causal factors that lead to food inadequacy and malnutrition. It stated that “it is not scarcity that caused malnutrition, but national policies and artificial barriers to agricultural trade….Nutrition [is] related to income and …[is] part of the general economic problem, which could not be isolated from the broad factors of productivity, capital formation, credit policy, and general business-cycle policy.”

These conclusions and lessons were fresh in the minds of international policy-makers at the close of World War II. In Europe the war had severely affected technical capacity, including the loss of basic seeds and other inputs. In much of the rest of the world, population growth was outpacing agricultural production. The first World Food Survey, completed in 1946, concluded that between one-half and two-thirds of the world’s people had been undernourished before the war and that conditions had subsequently worsened.

This was the climate in which FAO was established as the architectural centerpiece to address issues of food, nutrition and agriculture. The FAO Charter charged it with collecting, analyzing, interpreting and disseminating the agricultural knowledge required to meet global food and nutrition needs. From the outset its principal objective was to provide effective governance of the global agricultural system. In its early years FAO had no competitors. Article 1 of its Constitution mandated that FAO act “with respect to scientific, technological, social and economic research relating to nutrition, food and agriculture.”

This establishment of the modern international architecture for agricultural development, including agricultural research aimed at poverty reduction, envisaged that there would be only one international body and that it would exercise leadership on all components of agriculture, including research.
For the next 20 years, FAO remained the dominant player in agricultural development, although a few other actors began to emerge. The United Nations Conference on Trade and Development (UNCTAD) was created in 1964, mainly to address the deep concerns of newly independent countries over price instability in commodity markets. It quickly attained a shared leadership role with FAO in international commodity negotiations.

From 1945 to about 1970 the international agricultural architecture had three main areas of focus: stabilizing prices through commodity agreements, building essential physical infrastructure and disseminating technologies to farmers. The belief was that the technologies needed for increased productivity were already well-known and all that was needed was to make them available. Thus, research received less attention.

This assumption was reinforced throughout the 1950s when, principally as a result of the rapid recovery of European and Japanese agriculture, annual global grain production moved from deficits to increasingly large surpluses. Most agricultural commodities produced by developing countries (such as coffee, cocoa, tea, groundnuts, jute) also moved into large surpluses, driving prices to historic lows. The development models of the 1950s and 1960s, based on agriculture, were replaced by models emphasizing rapid urbanization and industrialization. This was about to change again, however, following the agricultural shocks of the 1970s.

5.2 Architecture Challenges and Changes in the 1970s

The early 1970s witnessed weather-related crop failures in some of the most heavily populated parts of South Asia; agricultural commodity prices doubled and trebled. Matters culminated in the world food crisis of 1973-1974, which threatened mass starvation, especially in Bangladesh and across the Sahel in Africa. FAO, still the only major international agricultural institution, suffered a major loss of prestige and credibility. It was criticized for not predicting the crisis and for not addressing it more aggressively. The events of the early 1970s transformed the dominant development paradigm. Experts, formerly convinced that food security was not basically a problem of food production, now envisioned a Malthusian future of population growth rapidly outpacing agricultural productivity. Three new organizations were quickly added to the international agricultural architecture: the CGIAR in 1971; the International Fund for Agricultural Development (IFAD) in 1974, established by the World Food Conference as a funding mechanism to support rural development and investment for small farmers; and the World Food Council in 1974 (since discontinued), established as a policy forum for coordinating the growing number of actors in the food and agriculture sector.

Thus, during the 1970s the international architecture for agricultural development was considerably expanded, and FAO lost its near-exclusive position. The areas of engagement
expanded as well, to include agricultural research, the environment and social change. Modes of funding also changed.

FAO had initially opposed establishing the CGIAR on the grounds that its mandate included responsibility for agricultural research. In the end, however, FAO became one of the co-sponsors of the CGIAR, agreeing to house the Secretariat for the Technical Advisory Committee (TAC). The CGIAR began in 1971 with four Centers engaged in research. A decade later, there were 13.

Also in the early 1970s, the environment emerged as an issue of global importance, requiring additions to the international architecture. The United Nations Environment Programme (UNEP) was established in 1972, although not until the 1980s did concerns about the negative environmental impact of agriculture on land and water supplies, forests and fisheries gain widespread attention. Those concerns produced a major shift in CGIAR research from a focus almost exclusively on increased production to one incorporating environmental externalities, requirements for sustainability and integrated approaches to natural resources management.

During the same period the emphasis in international agricultural development shifted to facilitating comprehensive social change. Boosting global agricultural production was seen as a necessary but not sufficient condition for global food security. Access (income) and nutritional balance were equally important. Rural development emerged as a broad concept, approached through massive integrated rural development projects that saw rural well-being as dependent on income and access to physical and social infrastructure, as well as increased agricultural productivity. These new approaches involved a return to the principles of the three-decades-old League of Nations report. Naïve notions that technology transfers and extension education were sufficient to do the job were abandoned. Agricultural research was considered essential to increasing farmer productivity, profitability and rural income growth.

Just as the CGIAR was being established, therefore, the international context for agricultural research for poverty reduction was undergoing profound changes. This resulted in almost immediate challenges to the core research model of the four founding Centers, which had been predicated on upstream research, using the most advanced techniques of the biological sciences in collaboration with the most prestigious Western agricultural research institutes.

The renewed international focus on agriculture in the 1970s included rapid expansion in bilateral and multilateral funding for agricultural development. By 1979 the agricultural sector was receiving 18 percent of official development assistance. Rural development was the largest sector of World Bank lending (through the International Development Association). Agriculture and rural development became the largest program area of the newly established European Union and were priorities for most bilateral development
Independent Review of the CGIAR System

agencies. Private foundations, such as Ford and Rockefeller Foundations, had pioneered the CGIAR’s establishment and continued as major donors. New multilateral organizations, such as IFAD and the World Food Council, and a host of nongovernmental organizations (NGOs) were becoming directly involved in agriculture. The architecture for international agricultural development had become quite complex, a motivating force behind the establishment of the World Food Council as a forum for coordinating the growing number of actors.

The financial fortunes of the CGIAR mirrored this trend. In 1971, the four founding Centers—IRRI, CIMMYT, IITA and CIAT—had incomes totaling $14.8 million. The expansion in the number of Centers and growth in funding per Center during the next decade led to a tenfold increase in funding, to $141 million in 1980. At the same time, the agendas of the CGIAR Centers were expanded through an increasing emphasis on “downstream” research and away from the earlier emphasis on applying “pure science.”

5.3 1980-2008: Agriculture’s Decline in the International Development Architecture

Early in the 1980s new forces emerged in the international political economy, with major consequences for the architecture of international agricultural development. The post-war Keynesian model of an interventionist state piloting a mixed economy was discredited by the “stagflation” of the 1970s. A more laissez-faire approach to economic policy emerged as globalization spread. Agricultural commodity prices fell to levels below those prevailing before the price run-up, and grain surpluses mounted. Public investments in agriculture declined just about everywhere on the implicit (and often explicit) grounds that these served mainly to crowd out more productive private investments.

The high expectations for agriculture in the 1970s proved unrealistic. Evaluation reports described disappointing failures and unimpressive results. Assessed as major failures, the large integrated rural development projects of the 1970s were abandoned. With these poor assessments, support for agriculture and rural development projects plummeted. Numerous explanations were offered for these negative outcomes, including excessively complex project concepts, weak government commitment, lack of supportive policy frameworks, inadequate local institutional capacity, inappropriate technologies and inconsistencies in donor approaches. Whatever the causes, international public investment in agriculture went into a free-fall, plunging from 18 percent of official development assistance in 1979 to less than half that by 1990. The status of international agricultural institutions declined in tandem. Chronic financial difficulties became the norm for most of them, including the CGIAR. During this period the CGIAR experienced its first major financial shock in 1993-1994.
The 1980s also witnessed strong political challenges to most multilateral institutional arrangements, viewed as largely incompetent and frequently corrupt. Some major donor governments, frustrated by what they viewed as sequential failures of collective action, resorted to bilateral action. The United States and later the United Kingdom withdrew from the United Nations Educational, Scientific and Cultural Organization (UNESCO). The United States and other donors slashed financial support to other specialized agencies and withheld contributions to the central UN budget. Other donor countries also began withholding assessed contributions, both as protest and as leverage for reforms.

The end of the cold war in the 1990s reduced competitive pressures to expand aid, intensifying these trends of reduced support to multilateral institutions. Throughout the 1990s, overall aid levels fell more than 25 percent in real terms. Donor countries increased their use of earmarked trust funds and extra-budgetary contributions to multilateral organizations, adding to the complexities of multilateral management and administration. The unpredictability in volume and program content of this new funding emphasis made multilateral financial structures, including those of the CGIAR, inherently unstable.

The end of the cold war also marked the onset of increasing regional, national and sub-national conflicts, which resulted in food shortages and large numbers of refugees. The World Food Programme became by far the largest recipient of donor financing for food and agriculture. Increasing demands for emergency and post-emergency rehabilitation assistance were also placed on other institutional components, most notably the FAO. Over the past decade, it has experienced a tenfold increase in financing for emergencies, while support for its regular and long-term programs decreased by more than 30 percent.

From 1980 until recently, attention to international agriculture – but not to food aid – continued to decline. Between 1995 and 2001 annual lending to agriculture and rural development by the World Bank fell in nominal terms by more than 350 percent (from $3.5 billion to less than $1 billion) Increasingly large percentages of official development assistance were assigned to the social dimensions of development, especially to education and health (including attacking HIV/AIDS). A private sector emphasis in many development assistance programs further reduced attention to state-run agricultural production programs.

This combination of new factors and forces made it increasingly difficult to generate support for traditional projects and for long-term activities and continuing investments in development, such as the CGIAR, institution building and rural infrastructure.

5.4 Growing Complexity

While all of this was happening, an exponential rise in the number of actors made the international development architecture even more complex. The international
development directory now lists more than 50,000 entities involved with international development. Most are NGOs, and many are directly engaged in rural development and agricultural work. There are also an estimated 280 international governmental or intergovernmental organizations and initiatives directly or indirectly competing for donor resources.4 There are now more nimble donors such as the Bill & Melinda Gates Foundation and new bilateral donors such as the government of China. Other governments, such as Brazil and India, are poised to become contributors. Some of the larger international NGOs are now more influential than many bilateral aid agencies.

Bilateral donors have also shifted financing from established institutions to funding through new single-issue organizations. This has been most evident in the health field, through the Global Fund to Fight AIDS, Tuberculosis, and Malaria; the Global Environment Facility; the Global Alliance for Improved Nutrition; and the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR). It is also occurring in agriculture through new institutional arrangements such as the Alliance for a Green Revolution in Africa and the African Technology Development Forum. Since the turn of the century, donors have also been increasingly shifting their multilateral financing to short-term, earmarked contributions.

At the same time, the balance between public and private net capital inflows to developing countries has shifted toward a much greater reliance on private capital. Net official capital flows increased from an annual average of $15 billion in the 1970s to $51 billion (nominal dollars) in the early 1990s. Over the same period nominal net private capital flows increased from an average of $37 billion to $185 billion. The structure of development financing today is skewed toward highly concentrated and mobile private investments and away from the long-term needs of development finance. While these new private flows have come to dominate the development resource picture in much of the developing world, the least developed countries remain a disappointing exception.

This shift from public to private is mirrored in international agriculture. The privatization of agricultural research and the marketing of genetically modified seeds by large multinationals have placed larger agribusiness firms in the mainstream, particularly in pest management. Plant patenting has introduced many complications in international policies for preserving plant genetic resources. The molecular biology revolution is in full swing. Many smallholders in Africa and Asia depend on the private sector for seeds and breeding stock, fertilizer, chemicals, machinery and feed supplements, and even markets for their primary products. Agri-food multinationals are driving changes in the global food economy. This poses major challenges to the public institutional architecture for agricultural development, which has little knowledge of private business and few links to it. This raises new questions about the comparative advantage of the international publicly financed institutions for agricultural development, including the CGIAR.
Agricultural research by the private sector is skewed, however, with most of it highly concentrated in developed countries and focused on technologies that are regulated by intellectual property protection regimes and that have patent protection. Recently, plant breeders’ rights have come to the fore. Data on investments in research and development (R&D) are generally weak and subject to wide variation due to the inherent difficulties of R&D classification systems. Nevertheless, a recent review provides a convincing overall picture of dramatic differences in the distribution of private sector R&D between developed and developing countries. It claims that “93 percent of … private R&D was performed in developed counties, where some 54 percent of the agricultural R&D was private, (while) the private sector represented only 6.3 percent of agricultural R&D in developing countries.”

5.5 CGIAR as a Provider of International Public Goods and CGIAR Partnerships

The CGIAR Charter refers to the provision of international public goods (Box 5.4.1). A separate background report prepared for the Independent Review addresses the issue of the CGIAR as a provider of international public goods and examines the delivery systems needed to ensure that such goods are produced and used effectively. It suggests an international public goods approach to determining the core competencies and comparative advantage of the CGIAR and an examination of the core and complementary components of international public goods delivery systems to determine the roles of the Centers and other actors at the national and local levels in the provision of the various international public goods in which the CGIAR is involved.

BOX 5.4.1: The CGIAR as a Provider of International Public Goods

*The network of international agricultural research Centers supported by the CGIAR and other interested donors conducts research that generates global and regional public goods to benefit the poor in developing countries by raising incomes and improving livelihoods without harming the environment. The CGIAR is committed to harnessing the best in science, from traditional knowledge to cutting-edge developments.*

*The products of CGIAR-supported research are global and regional public goods made available across international boundaries to national agricultural research systems (NARS), poor farmers and other users.*

Source: section II: Mission and Objectives of the CGIAR Charter, paragraphs 16 and 24.

While the Independent Review Panel survey of informed shareholders did not specifically include questions about international public goods, several respondents emphasized this as the main comparative advantage of the CGIAR among other public and private agricultural research entities at the national and international levels. They also indicated that even though providing international public goods is not CGIAR’s only role, as one respondent wrote: “they constitute a good approach to visualize the complementary character of the work of the CGIAR Centers and that of national agricultural research agencies,” [and that] “the
potential for region- and continent-wide IPGs [international public goods] has not been fully exploited in the CGIAR.”

The performance of the CGIAR as a provider of the core components of international public goods delivery systems to ensure that these are effectively used is closely intertwined with the arrangements the CGIAR establishes with other organizations at the national and local levels, in particular with national agricultural research systems (NARS) and the advanced research institutes (ARIs) in developed countries (see Chapter 11 for discussion of these partnership arrangements). In the Independent Review Panel survey of informed stakeholders, two-thirds of respondents indicated that partnerships with NARS are very important, and a further 24 percent indicated that they are important. Similarly, more than 85 percent of respondents considered partnerships with ARIs as important or very important.

The different character of partnerships with NARS and ARIs emerges clearly from survey responses to the question of what should be done to increase the effectiveness of CGIAR partnerships with each of these types of institutions. In the case of NARS, most respondents consider that planning, management and governance issues are most important (develop strategic plans, increase NARS representation in CGIAR organs, strengthen services to NARS). In the case of ARIs, a vast majority of respondents consider that joint financing and networking arrangements are the best ways of improving the effectiveness of partnerships.

These survey results suggest that different delivery system arrangements for international public goods need to be established to match the types of partners involved. They also indicate that much more work will be required to define clearly the international public goods that will be the focus of the Center’s activities, especially on the division of labor between the Centers and their partners in providing the core and complementary components of the agricultural research international public goods delivery systems.

5.6 The CGIAR in Today’s International Agricultural Research Architecture

During the 1990s the CGIAR experienced a steady deterioration of its financial fortunes. Since about 2000 finances have improved in nominal dollar terms and stabilized in constant dollar terms. There has been a decline in the proportion of unrestricted funds and what appears to be a secular trend toward a short-term and fragmented research portfolio.

Over its almost four decades, the CGIAR’s position in international agricultural research has declined as a percentage of global R&D for agriculture and total agricultural investments in developing countries. In 1980 the CGIAR spent $141 million, or about 9
percent of total global public sector investment in agricultural research in developing
countries. By 2000 it spent $345 million, or just 1.5 percent of the total.9

Clearly, the relative importance of the CGIAR, measured by its financial share of
agricultural R&D, has diminished over the past 15 years. More important than its financial
share, however, is its comparative advantage in international agricultural research for
development. Comparative advantage is always difficult to determine for organizations
like the CGIAR that provide public goods and do not function in structured markets. One
recent report concluded that the CGIAR has been losing its comparative advantage and is
in urgent need of correction:

"The comparative advantage of the CG system does not appear to have been a major criterion in
more recent decision-making. An apparent abundance of research resources may have led to a
perception that there was no opportunity cost to accommodating the newer political agendas in the
system. This perception was clearly wrong."10

A second study by the same lead researcher concludes that the CGIAR has lost strategic
direction and that “it is no longer in a strategic position to exercise the leadership envisaged for it
by its original architects.” The study asks “Is it too late?” and concludes that “it is time to
rethink international approaches to agricultural R&D, both because of the changes that have
taken place within the CG system and the changing context in which it will have to operate”11
(emphasis added). The current study explores this diagnostic and asks the same question:
"Is it too late?” It also explores what new approaches to agricultural research might involve
and require of the CGIAR and makes recommendations. The Panel recommends an
approach that would derive directly from the application of the conceptual framework of
international public goods.

There is also a new context to the question of whether it is too late. In 2008 issues of
agriculture and food security returned to the center stage of the international political
economy. Agricultural commodity prices rose sharply in 2006 and 2007, but so
spectacularly during the first three months of 2008 that by early April international prices
of all major food commodities had reached their highest nominal levels in nearly 50 years
and their highest real prices in nearly 30 years. Prices have subsequently moderated
somewhat but remain far above their trend level of the past three decades. The causes of
the price spike are complex and contentious, but most analyses agree that this is not a
temporary phenomenon and that the upward trend can be reversed only through major
increases in productivity. This year’s food crisis led to a major world summit, held in
Rome in June 2008, and the decision to make it the principal topic of the Group of Eight
meeting in July. The Rome summit yielded surprising consensus on the twin needs of
agricultural development (and investment) and social protection for the poorest.

There have also been large pledges of new financing for international agriculture ($1.2
billion by the World Bank, $50 million each by the Asian Development Bank and the Inter-
American Development Bank), and the Secretary-General of the United Nations issued a call for trebling investments in agricultural research. This raises questions about what will lose out, because pledges by the World Bank and the regional development banks do not involve new money. There is, however, also evidence of at least some new money. Saudi Arabia has just provided $500 million to the World Food Programme. Proposals are also circulating for new sources of financing for international agriculture, including a windfall tax on oil producers. This seems unlikely, especially in light of recent downward volatility, but the recent gesture by Saudi Arabia suggests that the institutions that constitute the international architecture for agricultural development should attempt jointly to bring the large and rich oil exporters into their membership.

5.7 Recent Evaluations and Reform Efforts

The institutional architecture for development has evolved haphazardly and randomly, so that today it comprises a collection of heterogeneous components, efforts and initiatives. Among its main problems are a lack of coherence, high levels of overlap, duplication, competition and structural distortions in financing (see Table 5.7.1).

Table 5.7.1: Defining Characteristics of the International Development System, 2008

<table>
<thead>
<tr>
<th>Problem</th>
<th>Characteristic</th>
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<tbody>
<tr>
<td>Lack of global governance of the system</td>
<td>The international development system is composed of a plethora of organizations, and none of them plays the pivotal coordination role needed to address global economic and social issues. As a consequence, some issues are left without any international governance, and others are addressed only on an ad hoc basis.</td>
</tr>
<tr>
<td>Lack of overall coherence and delineation of mandates and roles</td>
<td>The international development system can be viewed as a “dysfunctional family” of different organizations and agencies with confusion and conflict over mandates, roles and comparative advantage. Attempts at harmonization usually fail to acknowledge asymmetries and the vast differences that exist between different actors in power, influence, capabilities and experience.</td>
</tr>
<tr>
<td>Lack of predictable funding to international development system institutions and stable funding to developing countries</td>
<td>Problems of unpredictability and instability in development financing have been particularly acute for the development agencies of the United Nations and also for the CGIAR. Core financing has declined precipitously since the 1980s, with a small number of donors now providing a disproportionate share of the core operating funds for many agencies.</td>
</tr>
<tr>
<td>Imbalances between the financing requirements of developing countries and those for the provision of new international public goods</td>
<td>The stagnation of official development assistance in the 1990s coincided with the emergence of major new demands requiring financing, including post-conflict reconstruction, humanitarian relief, assistance to refugees, debt forgiveness, support for democratic institutions, improvement of governance structures, assistance to transition economies, efforts to fight drug traffic, crime and more recently “terrorism,” many of which are considered international public goods. The results are seen in an ever-increasing competition for funding.</td>
</tr>
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Since 2000 these deficiencies and problems have increasingly become the object of major studies and the focus of ambitious reform efforts. Considerable attention has been
accorded to transforming the principal institutions of the agricultural architecture. This began with an independent external evaluation of IFAD in 2005\textsuperscript{13} and was followed by a similar, but far more ambitious, independent evaluation of FAO in 2007.\textsuperscript{14} Both evaluations were highly critical. They provided evidence of a loss of strategic direction, absence of program coherence, failure to determine comparative advantage, and costly overlap and duplication of functions and efforts. Both reports underscored the absence of effective links between IFAD, FAO and the CGIAR; the failure to establish an agreed division of labor; and the absence of complementarities in their delivery of international public goods. The World Food Programme conducted its own internal review in 2006 and came to similar conclusions. A recent evaluation of the Global Forum for Agricultural Research (GFAR) also pointed to fragmentation of links between GFAR and the CGIAR.\textsuperscript{15}

All of these reviews and evaluations have led to highly ambitious programs of institutional transformation. The Action Plan for a “fundamental transformation of IFAD”\textsuperscript{16} was launched in December 2005. FAO embarked this year on an “Immediate Action Plan to transform the Organization and make it fit for the challenges of the 21\textsuperscript{st} century.”\textsuperscript{17} The World Food Programme has an ongoing program of institutional renewal, and the GFAR board recently approved a similar program. Finally, the current CGIAR Facilitated Change Management Process was launched in the “belief that transformation is necessary to enable the CGIAR to adjust to the rapidly changing external world and better achieve its mission.”\textsuperscript{18}

For the most part, these major programs aimed at transforming the international agricultural architecture are occurring institution by institution. They are disconnected from one another, and while all refer to inter-agency collaboration, cooperation and partnership, almost no attention is going to concrete measures to define mutual comparative advantage or to establish clear and enforceable divisions of labor.

These continuing barriers to a more functional and effective international architecture were evident at the recent High Level Conference on World Food Security. For example, the statement by French President Nicolas Sarkozy pointed to the wasteful overlap and duplication of effort among the main agricultural institutions and called for corrective action.\textsuperscript{19}

Resolving the current problems of costly overlap and duplication and the failures of the architecture to systemically address the requirements for the production, distribution and use of international public goods calls for a systemic approach to governance. The management and boards of the individual institutions cannot successfully address the central issues of institutional comparative advantage and division of labor. These are complex issues, and the inertial forces that attach to each institution are formidable. The independent evaluations conducted by individual institution offer only limited guidance. A system-wide independent evaluation, tasked to address the comparative advantage and division of labor questions, could be a first step in moving toward an agricultural
development architecture equipped to respond to the new realities of food security and the challenges of tomorrow.

The situation for the international agricultural architecture is evolving quickly. Whatever the outcomes, it is clear that conditions today present a major opportunity for revitalizing that architecture and achieving the much-needed coherence and division of labor that has so long proved elusive. Three broad principles should guide a renewed effort:

- Reforms of the global organization responsible for agriculture need to be conducted holistically, rather than piece by piece, to clearly establish comparative advantages and areas of expertise.
- Since today’s challenges are more complex and interrelated, specialized global organizations for agriculture will have to work together much more effectively than in the past and learn to work with specialized agencies in other sectors and with multi-sectoral organizations.
- The global architecture will need the ability to respond rapidly to emergencies, such as crop and animal diseases of global significance, as well as to make sustained investments over decades to address some of the intractable challenges, such as adaptation to climate change and biotechnology for the poor.
Notes

10. Ibid. pp 70-71.
12. These include those directed at harmonization and an improved division of labor under the “Paris Declaration” of 2005 and the attempted architectural transformations of the United Nations, first in the areas of peace and security proposed in 2004 and second, those in development proposed in 2006, a High-Level Panel report, “Delivering as One.”
CHAPTER 6
THE SCIENCE COUNCIL

6.1 Development of the Science Council

The Science Council (SC) has its origins in the Technical Advisory Committee (TAC) of the CGIAR. TAC was established in the CGIAR in 1971 as an independent scientific advisory body to the CGIAR. Over time, it took on a range of CGIAR roles, including developing medium- and long-term research priorities for the system, and recommending funding allocations to these. TAC recommendations, therefore, were important in determining funding to Centers, although this diminished somewhat in 1992 when World Bank ceased being “the donor of last resort”.

The Third System Review (1998) considered the effectiveness of TAC and concluded that it devoted too much time to budgetary matters and not enough to strategic work on future science and research priorities. In particular, it was felt that TAC had not been sufficiently effective in monitoring changes in the global research context and helping the CGIAR to adapt to, and exploit, these changes. The Review recommended that TAC be reorganized into a small core group supplemented as needed by time-bound sub-panels to undertake specific work on key research issues.

At the CGIAR Mid-Term meeting in 2001, a report was presented by the Change Design and Management Team (CDMT), proposing a range of reforms to the structure and governance of the CGIAR, including a recommendation that “TAC should be transformed into a Science Council advising the CGIAR on major science policy questions and ensuring that the quality and relevance of science practiced in the System meets world class scientific standards.”

The CDMT report proposed that the CGIAR should “elevate the game” by directing its collective, cross-Center skills at strategic, global needs. This involved both new, System-wide Challenge Programs and a Science Council composed of high level science policy strategists at the hub of “global and regional networks of scientific and development experts that could be mobilized to support the research conducted by CGIAR Centers and their partners.”

The CDMT proposed that the Science Council would not continue to carry out the System management functions of the TAC, specifically resource allocation and development of strategic plans. Its role would be limited to providing advice to decision makers: Centers, ExCo, and donors. It would scrutinize global and regional trends and advise the System on these. It would help to organize reviews on the scientific quality, and relevance, of research, and it would provide scientific assessments and critiques of strategic and operational plans prepared by the Centers. The CDMT also recommended that the Standing Panel on Impact Assessment (SPIA) continue under the auspices of the new Science Council.
A Working Group was established to turn this vision for a Science Council into a practical reality. Their report has been closely followed in the subsequent development and operation of the Science Council. It proposed that the Science Council comprise a small group “made up of a maximum of seven internationally-renowned individuals including the Chair.” The small size proposed for the Science Council, compared with the TAC, was intended to make deliberations efficient and to ensure that SC brought in “respected and independent groups of internationally acknowledged experts”, thereby engaging the global resource of agricultural expertise in scientific advice to the CGIAR.

The Working Group proposed that the diverse activities of the Science Council be organized under four Standing Panels. Two of these, a Standing Panel for Impact Assessment (SPIA) and a Standing Panel on Monitoring and Evaluation (SPME) continued activities already well established under TAC. Two new panels, a Standing Panel on Strategies and Priorities (SPPS) and a Standing Panel on Mobilizing Science (SPMS) would focus more on the strategic direction and relevance of agricultural research, the former focused on science strategies and priorities for the CGIAR System, and the latter on mobilizing the global agricultural research community. This last activity was a particular focus of the Working Group report, which proposed that the Science Council should have both “CGIAR-specific” and global roles, the latter being to “mobilize the best global scientific expertise for addressing the goals of the international agricultural research community.”

In January 2002, TAC became an interim Science Council and it operated until mid-2003, when it was replaced by a three-member transition group, which continued until the Science Council was formally established in 2004.

### 6.1.1 Structure of This Analysis

The Science Council has not been reviewed since its inception in 2004. At the time of the OED Meta-Review of the CGIAR, the Science Council was still being planned. That Meta-Review commented on the need for the Science Council to be well led and well resourced; and that it should report to the general membership of the CGIAR.

The present analysis is not based on primary research on the Science Council and its works – rather it is a meta-evaluation based material published by the Science Council and other sources, opinion surveys and interviews. It is directed specifically at the question posed in the Terms of Reference (TORs) of this review. The Chapter begins with an analysis of how Members and Center managements view the Science Council (6.2), followed by an analysis of how the Science Council fulfills its role in the System (6.3). Then, it addresses the TOR question “has the Science Council effectively fulfilled the three main objectives for which it was set up?” (6.4) and finally whether the Science Council is properly structured and sized for its task (6.5). At the outset, the Panel notes that the Science Council...
Council has been evolving since its establishment in 2004, and some of the issues which the Panel raises are presently being addressed, as seen highlighted.

6.2 Stakeholder Views on the Science Council

This review was able to draw upon three stakeholder surveys conducted during 2007-2008, which collected views from Members and Centers on the performance of some or all Science Council activities. The survey undertaken by this Independent External Review (Panel Survey) included a range of stakeholders, including ExCo, Members and Center Board Chairs, Directors-General and Deputy Directors-General, and is described in Appendix 1.

In 2007, a study commissioned by the European Commission on “Evaluation of EC Contribution to the Consultative Group on International Agricultural Research (CGIAR)” was published, which included the views of nine CGIAR Centers visited by its consultants. In 2007, Prof. George Rothschild prepared a report for the ExCo Ad Hoc Committee on Funding System Priorities that included interviews with Directors-General or Deputy Directors-General of all 15 Centers and Directors of three Challenge Programs. These interviews covered questions on Science Council and System Priorities.

Finally, in addition to formal surveys, the Independent Panel members held interviews with the Board Chairs, Directors-General, many donors and ExCo members in 2007 and 2008.

The 2008 Panel Survey asked the following questions:

- How important is it that there is a Science Council which helps Centers to enhance the quality, relevance and impact of their research?
- How effective has the Science Council been in doing this?

Figure 6.2.1 shows the results. The chart depicts the percentage of each stakeholder group surveyed that felt that the Science Council was “important or very important,” or “effective or very effective”. The responses of three groups are included for comparison. The surveyed groups were Science Council Members and Panel Members (N = 19), ExCo and CGIAR Members (83) and Center Board Chairs, DGs and DDGs (52).

Most respondents believe the Science Council to be important, with some variation. However there was a wide range of views on its effectiveness. Most notably, more than 80 percent of Center Board Chairs, Directors-General (DGs) and Deputy Directors-General (DDGs), considered Science Council to have been ineffective.
Figure 6.2.1: Percentage of Respondents from Three CGIAR Stakeholder Groups

Source: Panel Survey (Appendix 3)

Written comments on the survey by Centers’ management (Board Chairs, DGs, DDGs), and personal interviews, revealed four widely-held reasons for the low scores they gave to the effectiveness of the Science Council:

- Science Council is focusing too much on its evaluation role, overburdening Centers with reporting requirements without obvious benefits to the Centers.
- Science Council is not doing enough to help the Centers to explore future opportunities and challenges, and to mobilize the international scientific community.
- Science Council does not engage or communicate effectively with Centers.
- Science Council is imposing too narrow a view of science on the Centers: its interpretation of strategic research and international public goods, excludes research that has a more regional or local focus, such as some natural resource management (NRM), some social science research, and some applied research and capacity building to support adaptation and adoption of Centers’ products.

These points were supported by two other studies. For instance, the survey by Rothschild (2007) identified a widespread concern at Centers that the Science Council was being diverted from its independent, technical advisory role, which they respected, into other roles more related to management. The EU-commissioned study revealed that about 70 percent of Centers visited, were somewhat satisfied with the Science Council, and
30 percent were somewhat dissatisfied. The EU study reported that some Centers appreciated the role of the Science Council in promoting research quality and coherence, and felt that Science Council is increasingly working with Centers. However, most Centers were dissatisfied with the Science Council’s efforts in a number of areas, corresponding closely to its growing “policing” role (1 in the list above), its failure to engage the broader science community (2), and its narrow view of CGIAR science (4). In addition, the EU study reported concern that the perceived effort of Science Council to prescribe what research Centers should do was not productive in the absence of a resource allocation mechanism linked directly to priorities.

Survey findings were corroborated by the Panel’s interviews with DGs, DDGs and Board Chairs. Center research scientists, by contrast, generally professed little knowledge of the Science Council and its activities. Where they did express views these were, on the one hand, frustration at excessive reporting, unhelpful feedback and an unbalanced emphasis on peer reviewed publications as the key measure of the worth of research; and, on the other hand, appreciation for the Science Council’s role in stimulating dialogue about topics including impact assessment and international public goods.

The Survey by the Independent Panel (2008) also elicited comments from ExCo and Members, Professional Staff and Science Council groups, about the Science Council. Many had a more positive view of Science Council effectiveness (Figure 6.2.1 above). Where respondents from these groups did express concerns about Science Council effectiveness, these concerns consistently corresponded to points 2, 3 and 4 above. ExCo and Members expressed particular concern that the Science Council needs to focus more on identifying future challenges and opportunities for the Centers and needs to engage the broader research community more intensely and consistently on behalf of the CGIAR and Centers.

On the issue of the Science Council’s advocacy of strategic research and international public goods, views of donors are highly polarized. For instance, a meeting between the Review Panel and the European Initiative for Agricultural Research for Development (EIARD) representing the European donors to the CGIAR, revealed that some members value the Centers because of their strong focus on strategic research, while others value them for their ability to support the delivery of research outputs so as to have direct development impact.

Another useful if indirect insight on donor and other perceptions of the Science Council research position comes from another survey in 2006, of CGIAR Members and partner institutions, for the Performance Measurement System. This survey asked where the Centers were focusing research along a “research for development continuum,” where Science Council views would represent the more science end. Both CGIAR members (15) and partners, including ARIs, NARS and CSOs (85) regarded the current CGIAR research focus as in the middle of this continuum, while the average preference of both was that it should be further towards the development end. Interpretation of data on members’
average views must take into account their polarization, mentioned above. Nevertheless it seems clear that many members regard the Science Council’s focus as too “upstream”. A large number of CGIAR research partners agree.

Overall, both Members and Centers see having a Science Council as valuable and important (although Centers are considerably less enthusiastic about the present Science Council than Members). While Figure 6.2.1 shows strong differences in views on the effectiveness of the Science Council, of those who are concerned about effectiveness their reasons are strikingly uniform, as illustrated in Box 6.2.1. There is concern that Science Council has not engaged sufficiently with Centers as well as concern about its growing demand for reporting. All stakeholders, including Centers and Members, believe that the Science Council should be more active in identifying future challenges and opportunities for the system, and in engaging the global agricultural research community. Most Centers, and a significant number of Members, believe the efforts of the Council to focus Centers’ science on upstream strategic research and international public goods, to the exclusion of other kinds of research, is not in line with the mission or strengths of the Centers.

**Box 6.2.1 Convergent Views Among those Concerned with Science Council Performance**

<table>
<thead>
<tr>
<th>EXECUTIVE COUNCIL MEMBERS</th>
<th>CGIAR CENTER BOARD CHAIRS, DGs and DDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better working relationships with Centers needed</td>
<td>The SC no longer knows the Centers</td>
</tr>
<tr>
<td>The SC should not be a controlling body but rather an enhancing, motivating body for risk taking and new research areas</td>
<td>SC has shifted from an advisory and path breaking role to a policing role which is not generally appreciated</td>
</tr>
<tr>
<td>Assist the Centers to focus on big problems</td>
<td>SC should be a ‘thinking’ organization</td>
</tr>
<tr>
<td>Promoting collaborative activities with other research organizations</td>
<td>Contribute to choosing profiles which assist us in becoming relevant for tomorrow</td>
</tr>
<tr>
<td>Balance the emphasis on “good science” with one on relevant, development-oriented, pro-poor research</td>
<td>The SC should be realigned to take explicit account of donor concerns and of the market or audience for CG products</td>
</tr>
</tbody>
</table>

Source: Panel Survey (Appendix 1), interviews with Center Directors

### 6.3 How the Science Council has Fulfilled its Roles

At the outset, the different roles of the Science Council were assigned to Standing Panels. The work of each Standing Panel is considered below.

**6.3.1 The Standing Panel on Impact Assessment (SPIA)**

The Impact Assessment and Evaluation Group (IAEG) was established in the 1990s to synthesize available evidence of impact and to fill gaps in coverage so as to demonstrate to donors the value of investment in the CGIAR. In 1999 it was incorporated into TAC and renamed the Standing Panel on Impact Assessment (SPIA), with a brief to provide:
information on impacts at the System level of past CGIAR outputs in terms of CGIAR goals
support to and complementing the Centers in their ex post impact assessment
feedback from ex post evaluation for priority setting and to create synergies by developing links to ex ante assessment and the overall planning and evaluation functions of the CGIAR.

Most impact assessment (IA) in the CGIAR is undertaken at the Center level, where impact assessment specialists in each Center conduct ex post assessments on Center projects. Much of this work has been excellent, but the Science Council has noted that there is still variability amongst Centers in the level and quality of IA. To address this, EPMR guidelines now place particular emphasis on assessing IA in Centers, and IA work in Centers is assessed annually by SPIA as part of the Performance Measurement System (PMS) process. More recently SPIA has been working with Center IA focal points11 and drawing up Strategic Guidelines for Impact Assessment. 12

SPIA itself has put most of its effort into System level assessments. For instance, a study has been made comparing benefits from CGIAR research relative to the total cost of the system since its establishment,13 which indicated a positive internal rate of return. Another study of likely impacts of CGIAR crop improvement research on food security and hunger, involving analysis of the counterfactual, found substantial benefits.14 More recently, SPIA has commissioned a study of regional impact for Africa15 and another is ongoing for South Asia.16 IFPRI has also completed a longstanding SPIA effort to measure the impact of agricultural research on livelihoods and poverty reduction.17

The record of positive impact of CGIAR research has rested heavily on the impact of just a fraction of its past programs, specifically in crop germplasm improvement in rice and wheat, and the successful biological control of pests in Africa. The SPIA acknowledges that a history of “cherry picking” the best impact studies has left some areas of CGIAR research under-evaluated. It is making an effort to broaden its impact assessment beyond research on crop genetic improvement. It has recently published a study on measuring the impact of natural resource management (NRM) research.18 It has made a scoping study of the impact of participatory research in the CGIAR, and initiated a study to evaluate non-pecuniary, secondary and higher order impacts of agricultural research19 and has undertaken a scoping study on policy-oriented research in the CGIAR (see Chapter 3).20 Impact assessment in these research areas pose methodological challenges, as they do not lend themselves to standard micro-economic approach based on benefit to cost ratios and internal rates of return, and they can involve important indirect effects.

Achieving a broad coverage and comparability of impact assessment across CGIAR research areas appears to be SPIA’s major future challenge. It underpins SPIA’s third
objective to “support priority setting through use of ex post and ex ante assessment.” In SPIA’s own words:

“The most acute need for improvement is to improve the quantity and quality of ex post impact assessments in those research areas, including natural resource management, livestock, post-harvest, policy, and capacity building, that have a limited track record in ex post impact assessment relative to budgetary allocations …Environmental consequences are often not reliably reported in ex post impact assessments of natural resource management and genetic improvement technologies and the link between research output and decision-making outcomes is weak in policy-oriented ePIAs.”21

While there are challenges in using ex post assessments to support strategic planning,22 there is nonetheless an urgent need for improved impact assessment tools. For instance, the Science Council’s System Priorities have been principally criticized for not being based on a strategic assessment of the potential for impact of CGIAR research on poverty reduction (see Section 12.1.5[3]). SPIA is challenged to shift from a historical role of “demonstrating CGIAR impact where it can be found,” to a new role of building methods to assess and compare research impact and potential across the spectrum of CGIAR research. This shift appears to be underway.

SPIA seeks to balance its role in assessing Center performance with its role in advising and supporting Centers. With respect to the former, SPIA’s independence from the CGIAR is reflected in the fact that its chair is an ex officio member of the Science Council. SPIA has made a study of donor demand for ex post impact assessment, which concluded that donors value such studies, but that they tend to have, at best, an indirect effect on investment decisions.23 Nonetheless, SPIA’s assessment activities on behalf of donors have been increased since 2005 with its new role in evaluating Center impact research for the Performance Measurement System (PMS). SPIA’s independent status and its growing assessment role on behalf of donors has an inevitable impact on the relationship between SPIA and Centers. While, in interviews, some Centers indicated that they valued SPIA work, the Panel has the general view that Centers do not feel that SPIA is working for, or with, them.

6.3.2 Standing Panel on Monitoring and Evaluation (SPME)

The Standing Panel on Monitoring and Evaluation (SPME) has the role of ensuring the quality and relevance of ongoing science in the Centers, and across Centers. It does this through managing the Science Council’s program of monitoring and evaluation (M&E), including External Program and Management Reviews (EPMRs), inter-Center Thematic (Stripe) Reviews and reviews of System-Wide and Challenge Programs. SPME, along with SPIA, has also made a substantial contribution to the Performance Measurement System (PMS), since its establishment in 2005.
When it was established in 2004, the new Science Council inherited a substantial backlog of pending M&E activity generated during transition from TAC to SC, in particular EPMRs, which are scheduled at five year intervals. Figure 6.3.1 illustrates this, showing the years in which EPMRs have been completed since 2002. By 2007, SPME has “caught up” with the EPMR review process, and is better able now to address new M&E activities.

**Figure 6.3.1: Number of EPMRs Published Per Year Between 2000 and 2007**

![Graph showing number of EPMRs published per year between 2000 and 2007.](image)

Source: Data provided by Science Council Secretariat

Science Council has been given the task of streamlining the M&E process and reducing the burden of review on Centers, identified in the Third System Review, which has led to a plan for re-organization. This plan was predicated on two ideas. Firstly, existing M&E elements should be made more efficient by integration: Centers should drive M&E through their own self-assessment, involving annual MTPs and CCERs, which should then become the key resource for periodic external EPMRs. Secondly, M&E elements should be standardized and harmonized, making them both more effective and more attractive to donors, who need to forego multiple independent reviews of Centers by using the M&E information base and by participating in joint reviews led by a new independent evaluation unit.

Progress has been made towards increasing integration, efficiency and standardization of review mechanisms. New guidelines for EPMRs have now been developed and implemented (Science Council 2006b) and a meta-Review of EPMRs has indicated improvement in their quality and consistency across Centers, and demonstrated the extensive and rapid implementation of EPMR recommendations by Centers. Center-driven MTPs have become a more formal process, with the potential to make CCERs and EPMRs more efficient, and in 2007, Science Council reduced the frequency of their commentary of the MTPs to once every three years for Centers which have in place MTPs of an adequate quality to guide planning and monitoring and are not undergoing major programmatic change.
In its discussion with donors, the Review Team gained the view that donors thought the CGIAR’s M&E System was useful, as had the meta-evaluation of EPMRs. However, many Members continue to implement their own, separate evaluation of Center research, usually at the project level. The CGIAR Secretariat has reported that “between 2000 and 2005, some Centers have been subject to up to 21 such Member commissioned reviews.” The Panel, like the meta-evaluation mentioned above, found no evidence in discussion with donors or Center staff that improvements in M&E by the Science Council has reduced the level of independent Center evaluation done by Members and other donors.

In parallel to the effort to improve efficiency and efficacy, there has been in recent years a growth of new M&E responsibilities in the Science Council. The MTP process, which was formerly a general, “corporate” activity with minimum use \has become a central tool for planning and monitoring the relevance of the science of each of the Centers and the System as a whole. Since 2005, the MTP System has also been used to provide information for the PMS, where SPME and SPIA work together to provide the CGIAR Secretariat with an annual evaluation of research outputs, outcomes, impact and impact culture for each Center. Since 2006, Science Council has used the MTP process to monitor progress in the alignment of Center research to System Priorities. As Challenge Programs represented research activities independent of Centers, they began to submit separate MTPs for comment in the 2005-2007 planning period. In additional to this role, Science Council has taken on the review and assessment of Challenge Programs, which involves considerable activity owing to their several stages of development (see Section 8.1). It is difficult to see how further developments such as the implementation of Framework Plans for System Priorities, and the proliferation of Challenge Programs, will not add significantly to Science Council M&E responsibilities. One member of the Science Council Secretariat observed to the Panel, “there are so many things in the CGIAR that people don’t know what to do with that get dumped on the Science Council.”

Thus, efforts at harmonization and streamlining of M&E have been concurrent with the addition of new M&E activities, including the PMS, development of Framework Plans for System Priorities. Surveys of Center management and interviews with some of them, as reported above, indicate that most Centers believe that the more rigorous application of existing M&E practices, and the addition of the PMS, has actually increased their burden of reporting, and that this increased burden has not been compensated by a comparable reduction in independent evaluation by donors, as was intended in the re-design of the M&E System. Expanding M&E responsibilities in SPME has contributed as well to an impression amongst Centers that the Science Council itself has become increasingly an assessment-focused organization, oriented more towards the Secretariat and donors than towards Centers.

Finally, the M&E process has provided Science Council with a platform for implementing changes in the focus of Center research, in line with the System Priorities (Section 12.1). From its inception, the Chair and members of the Science Council have been determined...
to reverse what they saw as the erosion of the CGIAR’s science focus away from strategic research towards development activities more appropriate to partners. The Science Council’s focus on, and interpretation of, international public goods has reinforced this view. SPME has implemented the use of publication in peer-reviewed journals as a metric by which this desired research output can be measured.

The influence of this Science Council perspective is particularly apparent in the EPMRs, both through the selection and guidance of Panels and by commentary. In recent EPMRs, there is a distinctly greater emphasis on science quality, metrics and international public goods than in previous ones (see Section 12.3). SPME efforts to promote this research focus are also clearly seen in commentary on MTPs and in elements of the PMS.

6.3.3 Standing Panel on Strategies and Priorities (SPPS)

SPPS was established with a primary role of planning for the future priorities and strategies of the System. It principal activity since 2004 has been the development and implementation of CGIAR System Priorities. Parallel to this, it has also undertaken work on key strategic issues of future importance to the CGIAR.

System Priority setting is not new to the CGIAR. Since 1972, TAC has prepared or updated, at five yearly intervals, research priorities for the CGIAR System which served as a basis for monitoring the alignment of Center activities to a collective research plan, and allocation of unrestricted funding. Prior to establishment of the Science Council, the last such priority setting exercise was completed in 1997. By 2002, in the absence of a new priority setting exercise, it was becoming difficult to evaluate the CGIAR Research Agenda. Development of new priorities was therefore begun by the interim Science Council in 2003 through consultations with regional and global fora and surveys of stakeholders. The priority setting process will be discussed in more detail in Section 12.1.

Science Council presented the System Priorities to ExCo in October 2004 and they were published in November 2005. Centers were given three years to align their research programs to these priorities, with the option of leaving up to 20 percent of their research outside of the System Priorities, with encouragement from Science Council that this be directed at exploratory research into new areas. Science Council began to monitor adoption of System Priorities by Centers through the MTP process in 2006. As a Science Council activity, System Priorities have been finalized and implemented in a timely manner, and can be regarded as a major operational achievement of the Science Council.

The value and performance of the System Priorities will be discussed in Section 12.1. Here the report focuses on the impact of System Priorities on the operation of the Science Council. For the new Science Council, priority setting was no longer associated with resource allocation. However, it was focused at consolidating the research program of the CGIAR across Centers. In this way, it sought to support the evolution of the CGIAR
towards a more programmatic structure, envisioned in the reform process.\textsuperscript{37} Development of priorities was also deliberately aimed at the Science Council’s mission to focus Centers on strategic research and delivery of international public goods, and the presentation of the System Priorities\textsuperscript{38} made a considerable effort to delineate what is and is not appropriate research for Centers.

These objectives all mean a substantial new role for Science Council, namely monitoring and evaluating System Priority adoption and implementation by Centers. Hence, this strategic SPPS activity, once completely, evolved into an M&E activity.

The other activity of SPPS has been strategic studies on issues of System-wide significance. Seven major studies have been undertaken since 2004, on food safety, genomics research, social science research, biosafety, ethics, animal and fish genetic resources and intellectual property rights. In fact, all of these studies had been identified, and in some cases started, by TAC or the interim Science Council (iSC) and picked up by Science Council for execution or completion. For instance, strategic studies on biosafety and ethics had been specifically requested by the 2001 CGIAR Mid-Term Meeting. Work on these seven subjects has involved expert consultancies and workshops, which have often led to further studies, the consequence of which is that some studies are still ongoing. No new strategic studies of this kind were initiated by SPPS since formation of the Science Council in 2004. Very recently, however, Science Council has begun work on strategic position papers on biofuels and food prices.\textsuperscript{39}

While this process of strategic research appears to have been well executed in terms of engagement of international experts and processes of consultation and review, it has also been slow. Strategic issues of importance to the CGIAR may be considered as having some urgency. Science Council can be commended for completing studies initiated before its inception, but the overall length of some of these projects has been 3-4 years, while the study of ethics, since its request in 2001 has had some outputs in 2006 and is still underway in 2008.

When reports on strategic studies are completed, their uptake and application at the Center level is not automatic, reflecting that their design and execution has not been led so much by demand from Centers as by ideas from Members, or from the Science Council itself. For instance, the study on biosafety was requested by Members in 2001, completed in 2004 and is now feeding into a workshop in 2008 aimed at networking biosafety issues across the Centers. It is very likely that commitments of Science Council and its Secretariat to other activities have slowed completion of longstanding strategic studies, and also contributed to the lack of new strategic studies, for which there should have been some important candidates in recent years, such as climate change. The Panel believes that a more rapid mechanism is needed for identification and execution of studies on key strategic issues for the CGIAR, with clear, demand-driven uptake pathways.
In 2007, the Science Council dissolved SPPS as a Standing Panel (see Section 6.4).

6.3.4 Standing Panel on Mobilizing Science (SPMS)

The report of the Working Group on the Establishment of a CGIAR Science Council proposed a Standing Panel on Mobilizing Science that would engage the global international agricultural research community and involving it in CGIAR activities. It also envisaged SPMS creating a global platform for dialogue on agricultural research that would both improve CGIAR understanding of global issues and raise the CGIAR’s contribution to, and influence on, this global dialogue. Finally SPMS was seen as a mechanism to help link research between Centers. This would be achieved through these specific activities:

- Developing strong links/partnerships with leading scientific organizations worldwide, including Academies of Science, universities, research institutions and networks;
- Developing, in collaboration with the Centers, the System Office and external partners, a Roster/Inventory of the most active and committed researchers in agricultural and related sciences;
- Organizing, in collaboration with its partners, a periodic global conference in agricultural sciences to exchange views and experiences, promote linkages and advance the global agricultural research agenda;
- Facilitating, in collaboration with the Centers, the sharing of experiences and the development of joint initiatives among the scientists of the Centers.

SPMS has completed preparation of a roster of several thousand scientists collaborating with CGIAR Centers and a study of CGIAR Center’s partnerships with CSOs, while a study on partnerships with universities and other advanced research institutes is in planning.

Engagement of the agricultural research community was focused on organization of an international agricultural conference at 2-3 year intervals, starting in 2006. However, this did not transpire. Instead, in 2005 and 2007, Science Fora have been organized at AGMs by the SC and the CGIAR Secretariat. While these have focused on important issues and engaged distinguished international speakers, this has been more of an internalized CGIAR dialogue than an engagement with the global scientific community. This appears to be acknowledged by Science Council in its 2008-2009 workplan, where it proposes a Joint CGIAR–Scientific Communities “Meeting on Science for Development” for 2009, designed to showcase and provide a platform for discussion of new developments in science outside the CGIAR which has potential to be used in CGIAR research.

Another SPMS effort at global engagement has been its production in 2005, in cooperation with International Council of Scientific Unions and the Third World Academy of Science of the book, Science for Agricultural Development: Changing contexts, new opportunities. This
Independent Review of the CGIAR System

study surveys the global situation of agricultural research for development, putting CGIAR contributions in a broader global context, and concludes with observations for policy makers, public and private sector research and the development community. This book was to be updated in 2007, but instead SPMS has contributed a chapter to the World Development Report 2008: Agriculture for Development, on “Innovating through Science and Technology.”

Overall, SPMS has organized a number of activities and studies which have begun to link CGIAR research with the broader research community. With the exception of international conferences, which have not occurred, SPMS activities appear to have been of good quality, but collectively they represent little progress relative to original objectives. In 2007, the CGIAR website identified two objectives for SPMS, to 1) “enhance and promote the quality, relevance and impact of science,” and 2) “help to mobilize the global scientific community around the mission and goals of the CGIAR.” These objectives re-enforce the impression that SPMS has evolved towards a more inward-facing, CGIAR-specific rationale for engagement of the global agricultural research community, different from the “global role” originally envisaged. It is hard to disagree with the conclusions of the then Director and Chair of the CGIAR that, while being “the single new and perhaps most important element in the establishment of the new Science Council,” the “objective of mobilizing science from Southern and Northern institutions to support the CGIAR mission simply did not take place.”

In 2007, the Science Council dissolved SPMS as a Standing Panel (see Section 6.4).

6.4 Science Council Performance

The Science Council was established with three objectives:

- Enhancing and promoting the quality, relevance and impact of science
- Advising the Group on strategic scientific issues of importance to its goals
- Mobilizing and harnessing the best of international science for addressing the goals of the international agricultural research community.

Enhancing and promoting the quality, relevance and impact of science in the CGIAR

Within the Science Council structure, this objective has been the responsibility principally of SPME and SPIA. Since their inception, these Panels have produced:

- a substantial and diverse body of impact assessments of CGIAR research;
- external reviews of 13 Centers bringing this process back on track;
- external reviews of four new Challenge Programs.
More importantly, both Panels have sought to improve their effectiveness and that of Centers. SPIA has prepared standards for impact assessment, and begun important studies of impact assessment in previously under-assessed areas, such as NRM and policy research. SPME has implemented a plan to simplify and standardize M&E, achieving an increasing degree of integration, commonality and consistency of performance measurement across Centers. Streamlining M&E was also intended to reduce the burden of assessment on Centers.

However, the view of Centers is that this burden of reporting has not decreased, and this is no doubt due in part to the fact that SPIA and SPME have taken on more assessment activities, for instance, elements of the Performance Measurement System (PMS).

Advising the group on strategic scientific issues of importance

This objective has been the responsibility of SPPS. This Panel has completed the development of System Priorities for the CGIAR, a substantial achievement which has defined a common, coherent research agenda for the Centers. This will be discussed more in Chapter 12. SPPS has also completed a number of studies on issues of strategic importance to the CGIAR. There have been few new studies since creation of the Science Council and older studies have taken some time to find uptake by Centers. This process, like that to be described later for System Priorities, suggests that Centers, who are the ultimate beneficiaries of such strategic work, have been passive recipients of these outputs, rather than active participants and customers.

Mobilizing and harnessing the best of international science for addressing the goals of the international agricultural research community

This objective has been largely the responsibility of SPMS. While a range of activities have been carried out, none as yet have led clearly to greater engagement of the international agricultural research community in CGIAR activities.

Conclusions

Overall, the Science Council has been more effective in achieving some objectives than others. Outputs of SPIA and SPME have been substantial and growing, whereas, System Priorities aside, outputs of SPPS and SPMS have been more modest and slow to develop. This is perhaps not surprising, as SPIA and SPME represented CGIAR activities that were discrete and well established at the founding of the Science Council, whereas SPPS and SPMS were new. The plans for SPPS and SPMS were responses to the reform process vision of evolution towards inter-Center collaboration and strategic program alignment among Centers, and “opening up” the CGIAR to engage the global scientific community. These new activities for the CGIAR were not only challenging in their own right, but linked to the broader success of the reform process, through which Centers would
integrate strategically with each other and link better vertically with NARs, ARIs and CSOs. The Science Council was not intended to be the driver of this evolution, but only an element of it.

In 2007, the Science Council dissolved SPPS and SPMS as Standing Panels, and assigned to each of these subjects one Science Council member as “portfolio holder” for this area. This was done to “provide more operational versatility and full input of all SC members.” Making strategic support and mobilizing science a responsibility of all Science Council members has the potential to focus much needed effort on these activities in future, but there is also the risk that it will reduce emphasis on these areas, relative to established and growing formal Panel activity, unless they are given a high priority.

As a result of the variable development of different Science Council activities, the Science Council appears to be increasingly dominated by a monitoring and assessment role. Even in areas related to strategic advice, such as the development of System Priorities, the Science Council’s principle role is developing into one of monitoring Center compliance, e.g. with Priorities or future Framework Plans. The substantial administrative role of the Science Council in Challenge Programs (see Section 8.3), which should also grow, and the involvement of SPME and SPIA since 2005 in the CGIAR Secretariat’s Performance Measurement System add to the monitoring and assessment portfolio of the Science Council. Overall, this appears to be eclipsing the strategic and “mobilizing science” roles that both Centers and Members believe are Science Council’s most important functions.

While all of these monitoring and assessment activities are supportive of Centers, in the sense that they help Centers to maintain the quality and focus of their science, it is not surprising that Centers perceive the Science Council’s role as increasingly donor-facing and not Center-facing. In the Panel Survey and Center visits, the Panel were told that the Science Council rarely visits Centers or seeks a better understanding of their issues and perspectives, which might improve what some Centers perceived as the variable quality of their advice on MTPs. It is noteworthy that, at its meeting in March 2008, the Science Council Chair stressed the need for closer contact between the Council and Centers, even proposing that the Science Council be physically relocated to a cluster of Centers, such as that in Nairobi.

The evidence of surveys and interviews with Centers and Science Council points to a simple conclusion: the relationship between Centers and Science Council is missing the mutual confidence and trust necessary for Science Council to be effective in supporting the Centers or in encouraging them to adopt its recommendations.

The Panel has the impression that there are two specific reasons for this poor relationship. The first, indicated above, is the perception by Centers that the Science Council has become a donor-facing, reporting body. The second relates to the difference between
Science Council and many Centers in their interpretations of scientific research for development.

The Science Council asserts that CGIAR research should be strategic, taking advances in the Panel’s understanding of fundamental scientific processes and using them to develop new technologies and methods which improve agriculture. Further, they assert that Center research should deliver international public goods, which have the potential to be used on a global scale. Center activities that do not fall into these categories are to be considered minor and to receive considerably less attention. This position has been consistently applied by Science Council across System Priorities (see Section 12.1), and through its feedback on MTPs, EPMRs and the PMS (see Section 12.3).

Many Centers disagree with this position, for various reasons. Some argue that a focus on international public goods places greater value on crop genetic improvement, where new varieties may have application in many countries, than on natural resource management or social science research, where successful strategic research may need to be more context specific and regional. Some maintain that the effective uptake of their research outputs by partners and the delivery of impact requires additional support, in the form of applied research, as well as activities like field demonstrations, capacity building and training, and that these should be valid, to ensure an “impact pathway” and the adoption of research by beneficiaries. Several key donors to Centers also hold this view. Finally, some Centers regard the emphasis placed by Science Council on refereed publications in international journals as a measure of the quality of Center research to be inadequate (as indeed do some Center review panels60), that it undervalues research with a more local focus which is less likely to appear in such publications, whether it be strategic or applied.

These two factors, the perception that Science Council has become a donor-facing reporting body with little commitment to supporting Centers, and the view that Science Council is imposing on Centers an unbalanced view of the value of different kinds of research, have created a distance between Science Council and Centers. While this may not be visible in the regular and polite dialogue between the two, or in person-to-person relationships, at the institutional level it is substantial and manifests itself in the slow uptake by Centers of Science Council outputs or recommendations for which they feel no ownership, such as System Priorities and strategic studies.

It is the view of the Panel that the Science Council clearly has not, and should not be the independent monitoring and assessment body for Members and other donor, and the policy and strategy advisor for the Centers which helps to mobilize their engagement with the global scientific community. There is a conflict of interest in providing advice on strategy and then evaluating the quality of the strategy and the reaction of the Centers to the guidance received. One role will compromise the other. These are two very different roles, with very different properties, as illustrated by the following two hypothetical scenarios.
Were Science Council to become a fully donor-focused monitoring and assessment body, a good relationship between it and Centers would be desirable, but not critical. Taking this path, towards which the Science Council is already leaning, would call into question the funding of the Science Council by the Centers. For instance, such an evaluation activity on behalf of donors could be established collectively by donors themselves, or contracted out by them. While donors have said in surveys that they value Science Council impact assessment and M&E activity, the evidence is that it is not essential to their decision-making, nor has it reduced their use of separate and external evaluation. Donor interest and commitment would be required in this scenario.

Were Science Council to become a fully Center-focused and Center-engaging activity directed at strategic thinking and mobilizing science, resolution of the lack of mutual confidence and trust between Science Council and Centers would be essential. Centers presently cooperate with the Science Council because they see this as a way to access an important proportion of their funding, particularly unrestricted. Were the monitoring and assessment role of the Science Council for donors to decline and the strategic “SPPS and SPMS” roles to dominate, it would be important to return to first principles, and to develop with Centers the kind of strategic support most valuable to them. The composition and orientation of the Science Council would need to be broadened, to give sufficient strategic coverage to CGIAR research areas and to ensure an advisory capacity that balanced scientific and development expertise.

The CGIAR needs both scientific assessment of Centers and scientific support to Centers, hence the solution lies between these scenarios. This may involve separating the role of the Science Council in monitoring and assessment on behalf of donors from the current Council, making it a resource and activity managed by Members and donors, if they want it. The remaining, Center-facing Science Council would need to retain some capacity to assist Centers in M&E, including its full impact assessment (SPIA) activity, directed now towards helping Centers to improve impact assessment in all of their areas of research. The principle, strategic roles of the Science Council on behalf of Centers would need to be developed with Centers, so as to ensure that it did not duplicate capacity which Centers already had, but rather assisted Centers to have more relevance, access and influence in the international agricultural research and development community.

6.5 Science Council Operations

Table 6.5.1 presents some statistics on the size and cost of the Science Council since its inception. The Science Council maintains eight members. Since 2004 it has had 15, thus it has undergone about 50 percent turnover, including its Chair, mostly in 2007-2008. The Secretariat, based in Rome started with a few professional staff and grew to about eight, supported by temporary staff and consultants as shown in Table 6.5.1. The Science Council
also employs many outside experts for EPMRs, strategic studies and other activities. These numbers have fluctuated.

**Table 6.5.1:** Statistics on the Size and Cost of the Science Council

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Secretariat professional staff</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Secretariat total staff</td>
<td>12</td>
<td>17</td>
<td>18</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Outside experts</td>
<td>21</td>
<td>97</td>
<td>50</td>
<td>69</td>
<td>*</td>
</tr>
<tr>
<td>Budget ($m)</td>
<td>2.81</td>
<td>3.70</td>
<td>3.82</td>
<td>3.82</td>
<td>3.57</td>
</tr>
</tbody>
</table>

Source: Science Council Secretariat  *not available

The Science Council’s budget comes from donors funds to the CGIAR, and an annual contribution of about $800,000 from its FAO host. The donor funding is derived from funding that would otherwise go to Centers, hence the accepted position that the Centers pay for the Science Council. With recruitment to build the new Science Council, its budget grew from 2004 to 2006. A deliberate decision was made in 2007 not to allow the Science Council budget to keep growing, some leaving staff were not replaced and the budget declined in 2008. Note that, since its creation, the Science Council has experienced a rapid growth in its workload associated with delayed EPMRs (See Figure 6.3.1, completion of strategic studies, new PMS activities, new Challenge Program rounds and EPMRs and System Priority implementation. The completion of 12 EPMRs in the past two years has created some space to accommodate growth in other areas. However, it should be noted that the Science Council is committed to help implement 20 new Framework Plans for System Priorities as well as a greatly increased number of Challenge Programs, a PMS System and the revitalization of SPMS activities. The Panel believes these activities, were they all to occur, could dramatically increase the workload of the Science Council, necessitating an increase in staffing and budget.

The Working Group on Establishing a CGIAR Science Council proposed that Science Council have seven members, including a Chair – less than half the members of the former TAC. They did this on the arguments that this small size will encourage Members to be more involved with the System, to make more external networks and to work across their disciplines. A small Science Council has clearly left the Science Council Secretariat to play a large role in Science Council management and development.

The survey undertaken by this independent review (Independent Panel Survey) gathered a range of views from respondents regarding the composition of the Science Council. Board Chairs, Center Directors and Deputy Directors gave quite similar views to ExCo and Member respondents. There was a general view that Science Council should recruit highly-committed members of the highest quality in the area of agricultural research for development. Strong views came from both groups of respondents that the Science Council was unbalanced in its composition and should create a greater level of expertise in international development and pro-poor research. There were also specific suggestions...
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from both groups that there be more members with social science and with NRM expertise. These views reflect others in the Independent Panel Survey (see Section 6.2 above) that the Science Council itself should be less biased towards strategic research and more in touch with the research for development agenda of donors and Centers.

The Panel concludes that, despite the strong and competent support they get from the Secretariat, the eight, part-time Science Council Members are stretched to deliver all of the Science Council roles required. Four members also have demanding, specific responsibilities as Chairs of Standing Panels. It may be that having such a small Council has contributed particularly to activities which requires full engagement of Science Council, such as “mobilizing science”. Further, by keeping the Council so small, it has clearly been difficult to create the breadth of disciplinary expertise appropriate to the range of CGIAR strategic issues, as identified in survey responses above. The recent Science Council decision to make SPPS and SPMS “Council-wide” activities is a small step in the right direction.

6.6 Recommendations

The Science Council has been tasked with monitoring and evaluation, impact assessment, strategy and priority setting and mobilizing science, and has made substantial progress in several of these areas. It has made considerable efforts to improve monitoring and assessment in the System. It has encountered difficulty in playing a role as independent monitoring and assessment body for Members, and advisory and support body for Centers. The growing, donor-facing assessment role of Science Council has lost it the confidence of Centers, which undermines a cooperative, support relationship with Centers.

Monitoring and evaluation are important functions both for research institutions like Centers, which need a capacity for self assessment, and for donors, who need evaluations as a basis for funding decisions. The Panel concludes that these two roles cannot be effective delivered to both groups by a single independent advisory body. Further, the importance which this monitoring and evaluation activity has assumed in the Science Council has diminished what the Panel feels is its principle role, that of assisting the CGIAR with strategic advice on the development of its science for development activity and with engaging the global agricultural research community.

The Panel recommends that the strategic role of the Science Council, embodied in the former activities of SPPS and SPMS and now a cross-Council responsibility, be made the principle role of the Science Council in future. The Science Council should remain an independent advisory body which provides advice to the Consortium of Centers. Its advice will also be useful to the donor Fund, but the Science Council should not be in any way an instrument of the Fund to organize or conduct monitoring and evaluation of the Centers or Consortium.
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The Panel also recommends, therefore, that the current role of the Science Council in managing external evaluations of CGIAR activity, including Centers and Challenge Programs, should be removed. In the governance structure proposed in Chapter 13, the Panel proposes that this role be assigned to a Independent Evaluation Unit associated with the Donor Fund. The Consortium of Centers will need to develop their own internal, collective capacity for self-assessment using results based performance assessment systems and may choose to have expertise on the Science Council to provide advice.

Impact assessment research in the Science Council has supported both Center-wide assessments and developing impact cultures at Centers. The Panel recommends that that SPIA’s principal contribution is working with and for Centers to develop and improve self \textit{ex post} and \textit{ex ante} impact assessment methods for agricultural research for development, and that this remain as a Science Council activity, supporting self-assessment by the Consortium. Further, the Panel recommends that this activity be focused as a priority on the development of effective and comparable assessment methods for all CGIAR research areas, particularly those outside the area of crop genetic improvement.

Returning to the principle activities proposed for the Science Council, the Panel recommends the following. A future role should include strategic studies on issues of potential importance to the CGIAR and to global agricultural research for development. Relative to current Science Council activity, these studies need to be increased and made more timely in their delivery. Most importantly, they need to be developed in consultation with Centers, so as to be demand driven, with a clear initial understanding of how their results will be used. System Priorities, as part of the Science Councils strategic activity, are discussed in Chapter 12, with the Panel’s recommendations on them.

Mobilizing science through engagement of the broader international agricultural research community has not made substantial progress. This area needs focused attention, and should assist the building of CGIAR scientific links with the global agricultural research infrastructure (Chapter 13). Centers have ample capacity to make regional and project-related partnerships – the facilitating activity of the Science Council needs to be at another level of partnership. A close cooperation between Centers and Science Council is therefore needed to develop an effective program of support.

Finally, the Panel has found that a lack of confidence between Centers and Science Council now undermines the Science Council’\textquotesingle s role in supporting science in the Centers. If, as the Panel recommends, this is to become the principle future role of the Science Council, a more positive and effective relationship must be built. This will require greater consultation with Centers in the development of Science Council activities, more frequent visits and joint activities, and a replacement of a remote, monitoring culture with a culture of dialogue, advice and debate. A constructive and open Center-Science Council dialogue on research for development (See Section 13.1) will be an important first step.
Notes

1 Catley-Carson, M. et al. (2001). Designing and Managing Change in the CGIAR. Report to the CGIAR Mid-Term Meeting 2001 by the Change Design and Management Team.
2 Ibid.
3 Ibid.
5 Ibid.
9 Ibid. Page 3.
26 Science Council (2006b). Guidelines for Conducting External Program and Management Reviews (EPMR) of the CGIAR Centers as Part of the New Policy for Monitoring and Evaluation. Rome, Italy: Science Council, FAO.
28 Rudy Rabbinge, Chair, Science Council. Report to ExCo-13. 16-17 October 2007, Rome, Italy.
29 Ibid.
31 Science Council (2005a). Monitoring and Evaluation System for the CGIAR Centers. Rome, Italy: Science Council, FAO.
36 Science Council (2005a). Monitoring and Evaluation System for the CGIAR Centers. Rome, Italy: Science Council, FAO.
37 Catley-Carson, M. et al. (2001). Designing and Managing Change in the CGIAR. Report to the CGIAR Mid-Term Meeting 2001 by the Change Design and Management Team.
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CHAPTER 7
DONORS AND CO-SPONSORS

7.1 The Donor Membership

The role and performance of the CGIAR’s financing partners is a cross-cutting issue that is addressed throughout this report. Chapter 11, for example, looks into the role of the System’s Co-sponsors; Chapter 12 examines donor requirements for results management; Chapter 13, reviews the overall role of donors in CGIAR governance. This section focuses specifically on the relationship between the CGIAR and OECD donor countries (which provide 75 percent of the CGIAR’s total non-World Bank financing). The role of the World Bank is dealt with separately in Section 7.3.

The terms of reference for this evaluation include three basic questions of direct relevance to the CGIAR-donor partnership:

- Is the current financing structure for the System appropriate? Is it efficient and suited to the development and dissemination of international public goods? Is the CGIAR constricting or creating synergies for aligning the funding? What is the role of unrestricted resources in supporting the System, including the reform program?
- What are the main trends in the relationship and what are their implications?
- What perceptions and perspectives do donors hold on the value of the partnership and concerns and priorities for its future direction?

The evaluation’s exploration of these questions included discussions and semi-structured interviews with 14 OECD donors (including the European Community), comprising just under 90 percent of total OECD financing to the CGIAR.

7.1.1 Donors and Financing

Looked at in financing terms, the current trends in the CGIAR-OECD donor relationship give cause for concern in that their direction is towards fragmentation of effort and increasing cost-inefficiencies. These arise from the combination of:

- A steady rise in uncoordinated restricted financing linked to short-term deliverables;
- Unevenness in calculation of and provision for overhead costs, resulting in inconsistent and inadequate cost recovery and a free-rider problem;
- An increase in the number of small projects in the portfolios of the Centers, which cause higher overall administrative costs, reduced efficiencies and lower economies of scale;
- A rise in the number of individual donor evaluations conducted on an annual basis; and
A more rapid growth in non-member financing than member financing, reducing the overall collective merits of the partnership.

Figure 7.1.1 tracks the trends since 1995 in donor financing on an unrestricted basis. It shows an overall drop in unrestricted funding from $209 million in 1995 to $179 million (14 percent). It also reveals a more complex and nuanced picture. Most of the decline has been the result of an 82 percent fall in Pacific Rim unrestricted financing from $37.4 million to $6.6 million (Japan’s unrestricted financing dropped from $33.3 million to $1.7 million). If Japan’s drop is factored out of the calculation, the picture that emerges actually shows a small increase in unrestricted funding when measured in nominal terms (from $107.3 million to $122.6 million) over the same period. The unrestricted contributions of the United Kingdom and Norway tripled over the same period (U.K. from $8.5 million to $23.3 million and Norway from $4.3 million to $13.3 million).

Measured in nominal terms, therefore, OECD donors, minus Japan, have not reduced their contributions of unrestricted financing to the CGIAR. Measured in 2007 dollars, however, the decline has been a very substantial, from $203.8 million to $124.3 million (a decline of just under 40 percent).

A more significant factor in the calculus of restricted-unrestricted financing is a strong and accelerating secular trend towards restricted financing. The vast majority of any incremental contributions to the CGIAR from its traditional donors have been in the restricted category and the trend in this direction is accelerating. This situation is compounded by the fact that contributions from new donors also fall into the restricted category. Figure 7.1.2 provides a graphic illustration of the trend for OECD member countries alone.
This situation is further compounded by an increased number of small projects. Visits to Centers and interviews with Directors-General indicated a growing trend towards smaller projects, but CGIAR records do not systematically classify grants by size. The Panel, therefore, attempted to assemble time series data for five sampled Centers (IITA, CIAT, Biodiversity, ICRISAT and ICRAF). Data for extended time series analysis over the past decade proved difficult to construct. The data the Panel was able to assemble, however, showed that, for 2007, roughly 75 percent of all active projects had a value of less that $500,000. The data also showed for four of the five Centers (data were not available for the fifth) significant, but uneven, increases in the number of very small projects (less that $250,000) ranging from 18 percent to 217 percent (see Figure 7.1.3).

Figure 7.1.2: OECD Financing: 1995-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>IITA</th>
<th>CIAT</th>
<th>Biodiversity</th>
<th>ICRAF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>27</td>
<td>2000</td>
<td>1999</td>
<td>1999</td>
</tr>
</tbody>
</table>

Table 7.1.1: Growth in the Number of Small Projects: Four Centers – 1999-2007

An additional consequence of the number of smaller, uncoordinated projects is the number of evaluation missions carried out by donors. A condition of many of the small grants of donors is to require individual evaluations by the donor; some even require mid-term evaluations. Evidence shows that between 2000 and 2005, some Centers have been subject to up to 21 such Member-commissioned reviews.1 Despite their often limited target (e.g. a single project) these reviews add to the overall reporting requirements that Centers and Challenge Programs have to respond to. This situation begs the question of whether evaluation activities at System level – including Members’ individual reviews -
can be harmonized, in order to make sure that their benefits exceed the costs. This is an explicit and agreed standard of “good donorship” in the Paris Declaration. The current donor practice of multiple evaluations is imposing exceptionally heavy burdens on the Centers. Even more seriously, it distorts monitoring and evaluation systems away from measuring larger goals and development impacts to measures of small projects, and runs contrary to the explicit agreements on harmonization of the Paris Declaration.

A further feature of changes occurring in the OECD donor-CGIAR relationship relates to full cost recovery. The CGIAR has adopted a policy of full cost recovery in financing the Centers’ research programs/activities through grants restricted to specific activities or projects. The intention of the policy is to ensure that all donors to Centers pay their fair share of the indirect costs and to reduce the possibility of “free riding”. The policy, however, is not being applied evenly or consistently (see Chapter 15 of this report). The result is that indirect costs are not fully recovered for many restricted projects. The recovery rate varies across Centers. Full cost recovery on restricted financing is possible only to the extent that unrestricted funds are available to cover their full overhead (indirect costs). This amounts, however, to a classic free rider situation. Donors providing unrestricted financing are, in effect, subsidizing others who provide restricted financing that does not meet full overhead costs.

A further factor in the changing calculus of the OECD-CGIAR partnership is that, over the past decade, contributions by non-members of the CGIAR have provided the fastest rate of growth in overall financing. Non-member contributions in 1997 were $10.9 million and these increased five-fold to $57.3 million in 2007. The Bill and Melinda Gates Foundation is now the fifth largest source of CGIAR financing. Figure 7.1.3 shows the relative growth of financing from members and non-members over the past decade.

**Figure 7.1.3: Percentage Over Previous Period: OECD Members and Non-Members**
Donors are themselves aware of the negative consequences of these factors. At AGM 2006, a special “Member Coordination Forum” was held, focusing on harmonization of financing and evaluation. The background papers for the forum included one that reported the responses from 17 donors on restrictions in their own financing policies and practices. Twelve donors reported that their financing was restricted to projects only, whereas only two indicated that the restriction to their financing was its link to CGIAR priorities (Figure 7.1.4). The same background document based on self-reports by donors indicated 27 percent responding that they did not provide Centers with full cost recovery on their financing.³

Figure 7.1.4: CGIAR Donors Self-Report of Restrictions on Financing

![Bar chart showing restrictions on financing.](http://www.cgiar.org/pdf/agm06/agm06_mcf_member_funding.pdf)

7.1.2 Donor Perspectives on the CGIAR

The Panel’s conversations and semi-structured interviews with donors focused on six clusters of questions, as follows:

- What is your government’s position or policy towards the CGIAR? How important is the CGIAR to your government? Is it a priority relative to support for other multilateral organizations? Is your position changing and, if so, how and why?
- What do you see as the main strengths/advantages and weaknesses/disadvantages of the CGIAR? Have these changed over time? Are they changing now?
- In providing financial support to the CGIAR, do you establish priorities? How do you decide what to support? Do your priorities link to strategies, specific institutions, programs, sectors, etc.?
- How do you rate your own performance as a donor/partner of the CGIAR? What do you see as the principles of good multilateral donorship?
- What changes do you want to see? What are your goals and hopes for the current change program?
In most cases, these questions opened up extended conversations. Interviews scheduled for one hour often continued into a second hour. It is not possible to do justice in summary form to the richness of those conversations and the many ideas and suggestions that they elicited. Obviously, there were areas where different donors held quite different positions, for example on the number of Centers that should make up the System. In general, however, there was a remarkable degree of consensus in assessments of the CGIAR, of what is right about it and what is wrong and on the need for change. These areas of solid consensus may be synthesized as follows:

**The CGIAR is punching below its weight.** Donors perceive CGIAR performance as declining in relevance and impact. They tend to refer to the big gains having been made in the 1970s and 1980s and that the returns on investment have declined since then. They also refer frequently to “lost opportunities” and to lament what they see as System shortcomings in not responding to big challenges such as climate change and the current food price crisis. They also underscore that “the field has become very crowded” with new actors – strong NARS and research universities in the South, multinational corporations – and they find growing ambiguity in the CGIAR role. Yet, there is also a strong consensus that there is an important CGIAR role, and that the challenge is to define it and then to apply it.

**In organizational terms, the CGIAR is a paradox.** Donors tend to portray the CGIAR as a paradox. It is seen on the one side of the paradox as “ultra” modern – a true 21st Century organization – established on the basis of networks and alliances, with a vista from the global to the local, and committed to partnerships. On the other side of the paradox, they describe a 19th Century organization that is rigid, slow, and indecisive, “living on past glories” and “inclined to self-congratulation.” In other word, donors generally perceive the CGIAR as already holding some of the essential assets required to address and resolve “big, 21st Century challenges” but as carrying antiquated baggage that it seems incapable of shedding.

**We are not getting what we need from the CGIAR.** Most donors voiced concern that CGIAR activities do not provide them with adequate information on results that links to poverty reduction. Important differences between donors emerged in the Panel’s interviews, with some placing higher emphasis of the conduct of good science and others placing the greater emphasis on the demonstration of poverty reduction benefits. All agreed, however, that what matters in the end is the linkage between the two and that the domestic political audiences in their countries require clearer, stronger and more persuasive demonstration of this.

**Fundamental changes in governance are needed.** Donors see a need for fundamental and transformative change. The change attempts to date have assumed that change can be made incrementally and at the margin; the general view among donors is that these have
been mainly unsuccessful and that major structural reform is called for. To paraphrase one donor: “This review and change management process can’t be like past efforts. The CGIAR is at risk now as never before. Change is needed and it must be deep and serious.”

**Governance and decision-making capacities are the keys.** There is agreement among donors the Panel consulted that CGIAR governance is weak compared to the governance of other multilateral organizations and that, while decision-making may have improved somewhat with the establishment of ExCo, the CGIAR’s consensus mode of decision-making is not adequate for a network enterprise of this importance, scale and complexity. Unless this is corrected, no number of other reforms will make the required difference. One donor-member of ExCo described the governance and decision-making of that forum as “better than nothing but not by much.”

On the question of good multilateral donorship, there is a consensus among donors on the principles, although several also volunteered that their national political systems prevented or impeded them from applying them in the CGIAR. Most, but not all, were critical (even self-critical) of donors seeking ownership and attribution of project benefits. This said, the consensus principles of good donorship enunciated in the Panel’s interviews are: (i) early and clear indications of financing intentions; (ii) funding should be broadly stable and predictable; (iii) multi-year financing is preferable; (iv) donors should hold organizations principally accountable for development impacts; and (v) the Paris Declaration principles should apply.

**Box 7.1.2: Donor Perceptions of the CGIAR: Some Illustrative Statements**

- What is the purpose and effectiveness of the CGIAR as a System? The Review needs to answer this, because donors need to convince their constituents of validity of investment.
- There is lots of concern/suspicion about process. How serious are the Secretariat and ExCo about reform when they’ve blown the sequencing of the review and change management? Our expectations are on not only MDGs but global issues, global problems. We expect changes that will bring about openness of the System in terms of partnership with southern NARS (the CGIAR is not well regarded here), and partnerships with ARIs.
- The situation for global food and agricultural systems is completely different from when the CGIAR was created. There are now extremely strong NARS and the CGIAR Centers are relatively small. The CGIAR cannot continue without a clear strategy and redefinition of the niche.
- A strong development and poverty focus has been lacking in the CGIAR. I can’t defend the CGIAR without this, as proof is needed for politicians.
- I used to be able to show clear impacts and that is why we continue to provide core funding. I am now having difficulty demonstrating/communicating impact, and that affects core funding.
- We are cherry picking because we doubt that the CGIAR can establish the trust needed for real improvement.
- Everyone is reforming but the CGIAR is wasting time. There is inertia to change in the CGIAR. It can’t make decisions. The AGM is Mickey Mouse.
- The CGIAR has so many strengths, but its weak governance means it can’t make hard decisions and can’t act as a system. The 15 Centers should be a real network but they aren’t; they are 15 Centers.

Source: Independent Review Panel Interviews and Meetings with Donors
To summarize, the general consensus among the OECD donors is that the CGIAR is performing below potential and not providing what is required in order to justify increased financial contributions. There is also consensus that the main requirements for an improved CGIAR are efficient and effective decision-making, ambitious strategies that state what the CGIAR can contribute to food security and poverty reduction, and a results-based measurement system that measures genuine impacts. They perceive the CGIAR as a paradox of valuable assets and severe flaws. Many hold that the CGIAR is now at serious risk and that, without real reform, it will become increasingly marginal as development financing goes elsewhere. Donors are also largely in consensus on the principles of good donorship, but are equally aware that the current realities of the CGIAR are limiting their application.

7.2 Role and Performance of the Co-Sponsors

The role and performance of the Co-sponsors is addressed in Section 11.12 of this report. Among the main conclusions indicated in that section is that today there are major opportunities for the improved alignment and division of labor among the main multilateral organizations with mandates in agriculture and rural development. The CGIAR’s role as a producer of international public goods cannot be met without such alignment and the partnership arrangements essential to assure the production, distribution and ultimate enjoyment of the benefits of such goods.

In the Independent Review Panel’s survey of informed stakeholders, the existing partnerships with the FAO, IFAD and UNDP as Co-sponsors are viewed as average in both importance and effectiveness. In the 15 Centers, however, the perception is negative. Both importance and effectiveness were assigned very low scores in the Panel Survey. This suggests that considerable work will be needed in establishing a genuine CGIAR strategic framework on the basis of an international public goods delivery system.

7.3 The World Bank in the CGIAR

7.3.1 World Bank Involvement in the CGIAR, 1971 to 2008

The World Bank was one of four founding cosponsors of the CGIAR. It has been a driving force behind the development of the CGIAR and a lynchpin of its operations for 37 years. It has been a major donor to the Centers of both restricted and unrestricted funds. The World Bank currently contributes $50 million annually from its own funds through its Development Grants Facility. It houses the CGIAR Secretariat and provides its Chair, Director and staff.

The reason for the World Bank’s involvement with the CGIAR is that its mission is poverty reduction. It is concerned with the nutrition and health of the rural and urban poor, and
improving rural incomes. Agriculture and the management of natural resources are important arenas in which the World Bank pursues this mission.

After the United States ($280 million), the World Bank was the second largest single financial contributor to the CGIAR during the five years, 2002 to 2006, contributing $250 million in nominal dollars (12 percent of the total funding to the agreed research agenda of Centers by CGIAR members). However the World Bank’s financial contribution to the CGIAR and its affiliated Centers has been declining, in real after-inflation terms (Figure 7.3.1). In 2007, the World Bank’s contribution (10 percent of the total contributions by members) was the third largest, after the European Commission and the United States.

Figure 7.3.1: World Bank’s Contribution to the CGIAR and Centers, 1995 to 2007, in Constant (2007$) Dollars

![Graph showing the World Bank's contribution to the CGIAR and Centers from 1995 to 2007, in constant (2007$) dollars. The graph indicates a decline in the bank's contribution over the years.]

Source: CGIAR Secretariat, data and inflation index.

7.3.2 Strengths and Limitations

In 1999, the World Bank’s Operations Evaluation Department (OED) published a working paper on the World Bank, its grant program and the CGIAR. It concluded that “by virtue of its diverse roles, the World Bank is unquestionably the key player in the System.” This is probably still a fair assessment, although some other donors’ financial contributions are similar in scale to those of the World Bank. The prominence of the World Bank in operational matters of the CGIAR System Office is not less, and its influence in the governance of the CGIAR, through the Chair of ExCo, for example, also continues.

Nevertheless, the OED report continues: “the Bank, for all its virtues with respect to the CGIAR, has been less than fully effective in building links between its own programs in agriculture and natural resources, particularly loans for agricultural research, and the CGIAR Centers. The Bank could, and we think should, become more involved with the CGIAR at the technical level.
Some of the involvement hinges on staffing and administrative arrangements in the Bank’s central units with oversight responsibility for agricultural research investments. In addition, it may be useful to consider an earlier suggestion to designate a small proportion of the Bank’s contribution to the CGIAR as a Synergy Fund to help build links between Bank programs and the Centers.5

In summary, the World Bank brings strengths to its roles in the CGIAR, but has limitations as well. Its strengths include:

Direct contributions:

- A financial contribution that is substantial, stable, and about half of which is provided to Centers for unrestricted use.

- Providing the Chair of the CGIAR.

- Housing the CGIAR Secretariat, and providing World Bank staff positions for the director and the professional staff of the Secretariat.

- Managing the CGIAR Multi-Donor Trust Fund, at very low cost.6

Indirect contributions:

- Providing “convening power”, credibility and assurance to other donors that the affairs of the CGIAR are conducted well.

- Providing depth of management, legal and financial expertise in the central support units of the World Bank, when it is needed to back up the Secretariat.

- Using its privileges and immunities as an agency of the United Nations to support the functioning of the CGIAR Secretariat.

Its limitations include:

- Funding Limitations. Competition from other global programs for the DGF monies is fierce. The CGIAR has a privileged position, historically, and its grant comprises about 40 percent of all DGF grants. This is a limitation on the source of funds. If the World Bank were to increase its funding of the CGIAR and Centers it would probably have to tap other sources of concessionary funds, although it is not clear what these might be (perhaps grants through other parts of the World Bank Group, such as the International Finance Consortium (IFC), or from concessionary funds if their mandate allows.

Chapter 7 Donors and Co-sponsors
• **Other Time-and-Resources Limitations.** The time the World Bank Vice-President can devote to chairing the CGIAR is limited because he or she has many other responsibilities. The consequences of this limitation in availability are particularly apparent in the present period when radical changes to the structure of the CGIAR partnership are being contemplated. Conceivably the World Bank could appoint a CGIAR Chair who would be dedicated to CGIAR affairs half-time, but that would require special rearrangements within the World Bank and, if that meant a person of lower rank, it might reduce its convening power.

• **Conflicts between the Management and Oversight Roles.** The primary role of the World Bank is the role of donor. As a major donor it needs to exercise oversight of the results achieved by the World Bank’s annual investment of $50 million of DGF funds. This oversight role is compromised to some extent if the World Bank is, at the same time, managing operations. This is true of the management of programs, such as the Challenge Programs and the Gender Program, and the management of the CGIAR System, which includes financial and functional management of some Center business.

• **Less than optimal substantive linkages between the World Bank Agriculture and Rural Development Department and the Centers** in terms of the World Bank’s wider work (lending, technical assistance) in agriculture and natural resource management.

In 2003, the independent evaluation group of the World Bank (OED) said: “The multiplicity of roles the World Bank has assumed has led to:

1. **Excessive World Bank involvement in the day-to-day management** of the System and dependence of the System on the World Bank.

2. **Little use by the CGIAR of the World Bank’s country assistance capability and only minor intellectual engagement between programs of the World Bank Agriculture and Rural Development Department and the Centers.**

3. **A disproportionate share/burden of CGIAR management responsibility** allocated to a World Bank senior manager already burdened by other heavy managerial responsibilities.

4. **Reporting relationships for both the CGIAR Secretariat and the World Bank that (involve) real or potential conflicts of interest.** These features limit the capacity of the Bank to provide the objectivity and leadership needed for … reforms of the CGIAR…”

Despite minor changes, such as involving the Chief Economist to a very modest extent in oversight, the Panel’s view is that these weaknesses are essentially unchanged five years after OED stated them.
7.3.3 The Management Roles of the World Bank

Respondents to the Independent Review Panel’s survey of informed stakeholders were asked to comment on the World Bank’s governance and administrative roles in the CGIAR. Providing the Chair and using its convening power on behalf of the CGIAR tended to be rated higher than providing the Director or housing the Secretariat. A majority of respondents thought that it is important or very important for the World Bank to provide the Director. A very large majority thought it important or very important that the CGIAR Chair be a World Bank vice-president.

The highest importance ratings were given by representatives of developing country members. The lowest ratings varied. For example, the many Center Board Chairs and DGs/DDGs, and the System Office Professional Staff, both thought it less important that the Director be from the World Bank or that the World Bank house the Secretariat.

Table 7.3.1: Opinions on the World Bank’s Governance and Management Roles

<table>
<thead>
<tr>
<th></th>
<th>Average Importance Score (Scale 1-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Provide the Chair</td>
</tr>
<tr>
<td>ExCo and other Members</td>
<td>3.81</td>
</tr>
<tr>
<td>Developing Country Members (ExCo, 8)</td>
<td>4.38</td>
</tr>
<tr>
<td>Developing Country Members (Not ExCo, 15)</td>
<td>3.83</td>
</tr>
<tr>
<td>Center Chairs and DGs/DDGs</td>
<td>3.81</td>
</tr>
<tr>
<td>System Office Professional Staff</td>
<td>3.53</td>
</tr>
<tr>
<td>Challenge Program Scientists</td>
<td>3.27</td>
</tr>
<tr>
<td>Science Council</td>
<td>3.33</td>
</tr>
<tr>
<td>All</td>
<td>3.66</td>
</tr>
</tbody>
</table>


Figure 7.3.2: Importance of Four Particular Governance or Management Roles Exercised in the CGIAR by the World Bank (All Respondents)

Unit: Percentage of persons reporting important or very important.
7.3.4 The Financial Roles of the World Bank

Opinion about the World Bank’s financial involvement with the CGIAR is positive. In fact the work of the World Bank is one of the few matters on which the scores on appropriateness and effectiveness were broadly similar across different groups, and broadly positive.

Table 7.3.2: Opinions on the World Bank’s Financial Roles

<table>
<thead>
<tr>
<th>Respondent Group</th>
<th>Financial Roles</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Appropriateness</td>
<td>Effectiveness</td>
</tr>
<tr>
<td>ExCo and other Members</td>
<td>3.77</td>
<td>3.44</td>
</tr>
<tr>
<td>Developing Country Reps. (ExCo Members)</td>
<td>4.25</td>
<td>3.71</td>
</tr>
<tr>
<td>Developing Country Reps. (Not ExCo Members)</td>
<td>4.67</td>
<td>3.20</td>
</tr>
<tr>
<td>Center Chairs and DGs/DDGs</td>
<td>3.59</td>
<td>3.22</td>
</tr>
<tr>
<td>System Office Professional Staff</td>
<td>3.79</td>
<td>3.33</td>
</tr>
<tr>
<td>Challenge Program Scientists</td>
<td>3.36</td>
<td>3.22</td>
</tr>
<tr>
<td>Science Council</td>
<td>3.89</td>
<td>3.40</td>
</tr>
<tr>
<td>All</td>
<td>3.7</td>
<td>3.34</td>
</tr>
</tbody>
</table>

Source: Independent Review Panel’s survey of informed stakeholders, May 2008; n = 82s

All groups think that the World Bank’s financial roles are modestly appropriate to very appropriate to the CGIAR (3.4 to 4.67 on a scale of 1-5). The group most in favor of World Bank involvement was developing country members. To put this into perspective, respondents were asked to rate the appropriateness of 18 aspects of the CGIAR. The World Bank’s financial role was rated in the top third by all groups.

Figure 7.3.3: Appropriateness and Effectiveness of the World Bank’s Financial Roles in the CGIAR

n (appropriateness) = 201; n (effectiveness) = 157
Unit: Percentage of persons reporting appropriate/very appropriate or effective/very effective.
7.3.5 Convening Power of the World Bank

There is an especially strong consensus that the World Bank’s convening power is important to the CGIAR. Eighty-two percent of respondents thought it important or very important.

Table 7.3.3: Importance of the World Bank Convening Power

<table>
<thead>
<tr>
<th>Population</th>
<th>% Important or very important</th>
<th>% Significant value but not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (175 of 201)</td>
<td>81.71%</td>
<td>11.43%</td>
<td>6.86%</td>
<td>4.26</td>
</tr>
<tr>
<td>ExCo &amp; Members (77 of 91)</td>
<td>87.02%</td>
<td>11.69%</td>
<td>1.29%</td>
<td>4.39</td>
</tr>
<tr>
<td>Board Chairs/Center Execs (51 of 54)</td>
<td>82.36%</td>
<td>7.84%</td>
<td>9.8%</td>
<td>4.29</td>
</tr>
<tr>
<td>Challenge Program (11 of 15)</td>
<td>81.82%</td>
<td>9.09%</td>
<td>9.09%</td>
<td>4.18</td>
</tr>
<tr>
<td>Science Council (18 of 21)</td>
<td>66.66%</td>
<td>22.22%</td>
<td>11.12%</td>
<td>3.94</td>
</tr>
<tr>
<td>Professional Staff (18 of 20)</td>
<td>72.22%</td>
<td>11.11%</td>
<td>16.67%</td>
<td>3.94</td>
</tr>
</tbody>
</table>

Source: Independent Review Panel’s survey of informed stakeholders, 2008, Question 12D. n = 175

7.3.6 Appropriateness of the World Bank Playing Multiple Roles

The World Bank plays several roles in relation to the CGIAR and Centers. Respondents to the survey were asked to consider whether it is appropriate for the World Bank to play all of these financial roles, whether it is performing them effectively, and what might be done to improve its performance.

There was considerable unease about some of the roles played by the World Bank. Sixty-four percent (64 percent) of all respondents indicated that they believe it is appropriate for the World Bank to perform all of its roles. This is a substantial majority but that somewhat misses the point. One in three persons thinks that the World Bank should not perform some of its present roles. Only eight percent of respondents believe that no change is necessary in the performance of the financial roles of the World Bank.

Only fifty-four percent (54 percent) of all survey respondents believe that the World Bank is performing all of its financial roles effectively. Opinion on this varies. Approximately 60 percent of Science Council and ExCo/Member respondents think that the World Bank is performing all its financial roles well. Respondents from the other groups gave the World Bank an effectiveness rating in its financial roles of between 33 percent (scientists involved with the Challenge Programs) and 50 percent (professional staff in the CGIAR System).
Respondents were asked about five specific aspects of the World Bank’s work. Three dealt with performance measurement and two dealt with the World Bank’s financial responsibilities. Respondents were also invited to offer comments about how the World Bank might improve its performance of its roles.

**Conflicts of Interest (real and perceived).** A significant number of respondents believe that the World Bank is in a conflict of interest by having both oversight and management (especially financial management) and governance roles. Respondents suggested that the governance and financial roles – and the financial roles themselves – should be disentangled; and that some responsibilities should be passed to others. A few respondents thought the conflict among roles, whether real or perceived, has been a factor in causing general friction within the CGIAR community.

**Clarifying and Reassigning Roles and Responsibilities.** By far the majority of comments noted a lack of clarity and transparency in regard to various parties’ roles and responsibilities. In addition to the conflict-of-interest issue, respondents had other concerns. Some respondents expressed confusion over who is responsible for what in the CGIAR System. For example, a few respondents noted that there is confusion over who is responsible for the Multi-Donor Trust Fund (“the World Bank or the CGIAR Secretariat?”). Many respondents found the distinction between World Bank responsibilities and CGIAR Secretariat responsibilities unclear.

As noted above, a number of respondents suggested changing, diminishing or transferring the World Bank’s roles to one or another of CGIAR actors. There were many different opinions. For example: transfer financial oversight and resource allocation responsibilities to the Ad Hoc Finance Committee; give the Science Council responsibility for allocation of resources; give the Alliance responsibility for recruiting staff and monitoring the CGIAR Secretariat; have the World Bank return to its role as donor of last resort, and so on.

It is perhaps particularly interesting that a third (32 percent) of all respondents thought that allocation powers should be transferred to the Ad Hoc Committee on Finance (an option that was listed among others in the Survey). However, the practicality of this was challenged by some respondents (do the members of the Ad Hoc Committee on Finance have the time and expertise to fill this role effectively?).

Some respondents made suggestions for changes by the World Bank and/or the CGIAR Secretariat with respect to:

- **Funding** – Some respondents thought that the World Bank (and the CGIAR Secretariat) should have a clearer position on unrestricted funds; and that they should be more proactive in mobilizing funds from donors, and in identifying and securing other funding sources. They must ensure that all money/financial transactions are reported and the information made available. Half of respondents (47 percent) thought that the
operations of the Multi-donor Trust Fund should be improved (this was an option among possibilities listed).

- **Services to members** – Some thought that the CGIAR Secretariat should provide better briefings to members and Executive Council in support of their decision-making.

- **Advocacy** – Some expressed the opinion that the World Bank (CGIAR Secretariat) has not fulfilled its advocacy role effectively; “more advocacy, less transactions costs”

- **CGIAR Secretariat work-load** – Some suggested that the Secretariat is spread too thin and is under-funded. It was said that the Secretariat should focus on the limited number of things for which it has sufficient resources to do well, like providing member support, financial monitoring and performance measurement.

- **Lack of openness and transparency** was on the top of the list of concerns. Respondents cited the need for more transparency with respect to (i) the management and state of the Multi-Donor Trust Fund, budget discussions, and the allocation of funds; (ii) consultations with Co-sponsors and major donors; and (iii) staffing decisions and processes.

- **Need for more substantive engagement** – Among the respondents to the Independent Review Panel’s survey of informed stakeholders, two thirds of the leadership of the Challenge Programs and a little more than half the Center DGs and Chairs think that two-way exchanges between the Centers and World Bank strategists in agriculture and rural development should be given a higher priority. For their part, some of the World Bank staff interviewed would also welcome more substantive engagement but feel that they are constrained because of the intermediation of the CGIAR Secretariat and because the Centers work is not obviously aligned with the country and regional programs of the World Bank.

**Friction Between the Secretariat and the Centers**

The survey results and interviews at the Centers and among CGIAR members revealed a considerable amount of friction and distrust between the Secretariat and the Centers during the period 2001-2007.
7.3.7 Assessment of the Performance of the World Bank Against the Criteria for Global Programs Articulated by the World Bank’s Independent Evaluation Group (IEG)

Dependence on the World Bank

The World Bank’s full financing of the CGIAR Secretariat does not accord with DGF guidelines that state that the World Bank should not fund more than 50 percent of the costs of an in-house secretariat “to avoid a program’s over-reliance on the Bank”.

The World Bank presently pays 100 percent of the CGIAR Secretariat costs, which were $4.2 million in 2007. The total costs of the CGIAR System Office (including the costs of the AGM and the costs borne by FAO for the Science Council) were, by the Panel’s estimate, approximately $14 million in 2006, of which the World Bank paid approximately $10.2 million (about 73 percent). These are estimated figures, but it seems clear that the World Bank is bearing considerably more than the benchmark 50 percent.

7.3.8 World Bank Actors – Management and Oversight

There are several World Bank officers who are involved with the CGIAR, including:

- Vice-President, Sustainable Development (the CGIAR Chair)
- Director of the Agriculture and Rural Development Sector (who officially represents the World Bank in CGIAR meetings and who formally makes the request to the Development Grant Facility for the annual grant to the CGIAR)
- Chief Economist (Senior Vice-President, Development Economics, and Chief Economist)
- Regional Managers, Agriculture
- Director, CGIAR Secretariat

The World Bank Operations Evaluation Department study of the CGIAR (2003) noted that there was a mix of oversight and management functions executed by the Bank, resulting in “conflicts of interest that currently exist among the roles of the Chief Economist, the ARD Director, the Research Advisor, and the CGIAR Director.”

In its response, management agreed that “the Senior Vice President and Chief Economist would be responsible for the oversight function;” and that there would be an independent triennial evaluation of the CGIAR, with World Bank Board approval, as a requirement for continuing World Bank support. The present study by the Independent Review Panel is the first such exercise.
The Office of the Chief Economist had some input into the Terms of Reference (TORs) for this Review but was not represented on the ad hoc committee of the CGIAR that actually drafted them, nor on the advisory/steering committee for the Panel. It is not clear to the Panel what other actions the World Bank expected its Chief Economist to take in regard to oversight of the CGIAR.

The roles of the Vice-President for Sustainable Development and the Director, Agriculture and Rural Development Sector (ARD) remain unchanged.

Therefore the Panel concludes that although an effort was made to separate and strengthen oversight after the OED evaluation of the CGIAR, it has not made a significant difference to the essential problem that the World Bank is both a major donor and the dominant manager of the CGIAR.

7.3.9 The CGIAR Chair

All but the first CGIAR Chair have been World Bank Vice Presidents responsible for agriculture and rural development.

Almost two-thirds of respondents to the Independent Review Panel’s survey of informed stakeholders believe that it is important or very important to have a World Bank Vice-President as the Chair of the CGIAR. This is a broad consensus. Both ExCo/Members and Board Chairs/DGs/DDGs agree on this. However opinion among the Board Chairs is polarized. Two thirds think it is important or very important to have a World Bank Vice-President as Chair; and one third is at the other extreme, thinking that it is of “no or minor importance”. Science Council members are even more ambivalent. Half think it important or very important and almost as many think it is of “no or minor importance”.

The view of the Independent Review Panel is that one needs to distinguish between (1) the World Bank Vice-President chairing a CGIAR Fund to mobilize resources and encourage strategic allocation of those resources, such as is proposed in Chapter 13 (highly appropriate and important), and (2) the World Bank chairing a joint organization of Centers with substantial responsibility for operational decision making (somewhat inappropriate and without comparative advantage). It also seems reasonable to expect that such a division of responsibilities would also be a better fit with the modest amount of time that a World Bank Vice-President is likely to be able to spend executing the duties of Chair.
7.3.10 Should the CGIAR Director be Staff of the World Bank?

At present the Director of the CGIAR is a staff member of the World Bank. This has certain advantages, including internationally competitive compensation and travel support, for example. However, this arrangement makes it difficult to distinguish where the CGIAR Secretariat ends and the World Bank begins. The Panel understands that the performance appraisal of the Director, for instance, is solely the prerogative of the World Bank.

About half of the respondents to the Independent Review Panel’s survey of informed stakeholders believe that it is important or very important that the CGIAR Director be a staff member of the World Bank, and about one third of respondents believe that it is of “no or minor importance”. The most polarized opinions on this matter were found among Science Council respondents, with the Board Chairs/DGs and the professional staff of the System Office also polarized on this issue. They were equally divided between those that thought it highly important and those that thought it trivial (with relatively few in between).

As with the position of Chair, the ambivalence about the position of CGIAR Director is caused partly by a lack of clarity of responsibilities and authorities. In Chapter 13, the Independent Review Panel proposes a new governance model based on a rebalanced partnership between a CGIAR Fund for Agricultural Research and a Consortium of Centers. The Independent Review Panel believes that the roles of Director of the proposed Fund and Director/CEO of the proposed Consortium are quite different. The first requires deep knowledge of international development but only modest management ability (the Secretariat of the Fund would not need to be large or complex). The Director/CEO of the Consortium, in contrast, would need to be a credible leader of the joint Centers (science), a
thoughtful and persuasive strategist, and an effective manager of fairly large joint operations.

In summary, the Panel thinks that in the recommended new governance system the Director position should be split into two – the Director of the Fund and the CEO of the Consortium.

Table 7.3.5: Importance of Provision of Director of the CGIAR Secretariat

<table>
<thead>
<tr>
<th>Respondent Groups</th>
<th>Number &amp; %age of those responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not &quot;important&quot;</th>
<th>% No / minor importance *</th>
<th>Mean Score (1-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (177 of 201)</td>
<td>88.06%</td>
<td>48.03%</td>
<td>20.34%</td>
<td>31.63%</td>
<td>3.24</td>
</tr>
<tr>
<td>ExCo &amp; Members (79 of 91)</td>
<td>86.81%</td>
<td>54.43%</td>
<td>24.05%</td>
<td>21.52%</td>
<td>3.62</td>
</tr>
<tr>
<td>BCs/Center Execs (51 of 54)</td>
<td>94.44%</td>
<td>45.1%</td>
<td>13.73%</td>
<td>41.17%</td>
<td>2.94</td>
</tr>
<tr>
<td>Challenge Program (11 of 15)</td>
<td>73.33%</td>
<td>27.27%</td>
<td>36.37%</td>
<td>36.36%</td>
<td>3.09</td>
</tr>
<tr>
<td>Science Council (18 of 21)</td>
<td>85.71%</td>
<td>44.44%</td>
<td>11.11%</td>
<td>44.45%</td>
<td>2.96</td>
</tr>
<tr>
<td>Professional Staff (18 of 20)</td>
<td>18 / -- %</td>
<td>44.44%</td>
<td>22.22%</td>
<td>33.34%</td>
<td>2.94</td>
</tr>
</tbody>
</table>

Source: Independent Panel Survey, 2008, q. 12B

7.3.11 Should the CGIAR Secretariat be Housed in the World Bank?

Half the respondents to the Independent Review Panel’s survey of informed stakeholders thought it is important or very important that the CGIAR Secretariat be housed in the World Bank. About one third think it is “of no importance or minor importance”. This is consistent across all groups of respondents. (Table 7.3.6)

The Panel thinks that a Secretariat for the CGIAR Fund should continue to be housed in the World Bank; and the Secretariat for the Consortium, including joint services and program administration, should be housed separately from the World Bank.

Table 7.3.6: Importance that World Bank Houses the CGIAR Secretariat

<table>
<thead>
<tr>
<th>Respondent Group</th>
<th>Percent Important or v. important</th>
<th>Percent Significant value / not &quot;important&quot;</th>
<th>Percent No / minor importance</th>
<th>Mean Score (1-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (179 of 201)</td>
<td>50.84%</td>
<td>15.08%</td>
<td>34.08%</td>
<td>3.26</td>
</tr>
<tr>
<td>ExCo/Members (81 of 91)</td>
<td>55.56%</td>
<td>16.05%</td>
<td>28.39%</td>
<td>3.47</td>
</tr>
<tr>
<td>Board Chairs/Center Execs (50 of 54)</td>
<td>42.0%</td>
<td>14.0%</td>
<td>44.0%</td>
<td>2.96</td>
</tr>
<tr>
<td>Challenge Program (11 of 15)</td>
<td>63.64%</td>
<td>0.0%</td>
<td>36.36%</td>
<td>3.27</td>
</tr>
<tr>
<td>Science Council (19 of 21)</td>
<td>47.37%</td>
<td>21.05%</td>
<td>31.58%</td>
<td>3.37</td>
</tr>
</tbody>
</table>
7.3.12 How the World Bank Might Improve its Performance in the CGIAR

The respondents to the Independent Review Panel’s survey of informed stakeholders were asked what actions might improve the performance of the World Bank in regard to the CGIAR. Five possibilities were suggested. Respondents could check any or none of the five, and were invited to add comments. Nine out of 10 respondents think that change is needed. The most popular option, among the possibilities stated, was to form a legal entity autonomous from the World Bank.

Table 7.3.7: Improving Performance of World Bank in its Various CGIAR Roles

<table>
<thead>
<tr>
<th>Possible actions</th>
<th>All</th>
<th>ExCo &amp; Members</th>
<th>Board Chairs, DGs, DDGs</th>
<th>Challenge Programs</th>
<th>Science Council</th>
<th>Prof. Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGIAR legal entity should be more autonomous from Bank</td>
<td>56.57%</td>
<td>60.26%</td>
<td>51.02%</td>
<td>66.67%</td>
<td>52.94%</td>
<td>52.63%</td>
</tr>
<tr>
<td>Decrease the conflict between World Bank’s role as major donor &amp; its management role</td>
<td>48.0%</td>
<td>53.85%</td>
<td>40.82%</td>
<td>41.67%</td>
<td>17.65%</td>
<td>73.68%</td>
</tr>
<tr>
<td>Make an increase two-way exchanges with World Bank strategists in agriculture &amp; rural development should be high priority</td>
<td>41.14%</td>
<td>34.62%</td>
<td>53.06%</td>
<td>66.67%</td>
<td>47.06%</td>
<td>42.11%</td>
</tr>
<tr>
<td>More emphasis on mutual gains in knowledge management</td>
<td>39.43%</td>
<td>28.21%</td>
<td>40.82%</td>
<td>50.0%</td>
<td>47.06%</td>
<td>42.11%</td>
</tr>
<tr>
<td>No change needed</td>
<td>9.14%</td>
<td>7.69%</td>
<td>16.33%</td>
<td>8.33%</td>
<td>0.0%</td>
<td>5.26%</td>
</tr>
</tbody>
</table>


7.3.13 Summary of Observations on the Role of the World Bank in the CGIAR

The World Bank Independent Evaluation Group (IEG) has formulated criteria against which the World Bank’s participation and performance in global funds can be judged. The Independent Review Panel has rated the World Bank’s involvement in the CGIAR against those and similar criteria. (See Table 7.3.8)
### Table 7.3.8: Panel Assessment of the Role of the World Bank

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Panel Rating</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oversight</td>
<td>Medium</td>
<td>The World Bank stated in 2003, after its Operations Evaluation Department did an independent evaluation of the CGIAR, that the World Bank’s &quot;Chief Economist would be responsible for the [CGIAR] oversight function.\textsuperscript{a} It is not clear to the Panel what the World Bank expected its Chief Economist to do in that capacity (the Office of the Chief Economist had some input into this review’s terms of reference, but was not represented on the committee drafting the terms or on the Panel’s advisory and steering committee). The roles in the CGIAR of the World Bank’s Agriculture and Rural Development Department, and its own Sector Board, have also remained unchanged. The Panel finds that although an effort was made to separate and strengthen oversight after the 2003 evaluation, the World Bank remains both a major donor to the CGIAR and its dominant manager. That is a problem.</td>
</tr>
<tr>
<td>Subsidiarity</td>
<td>High</td>
<td>The CGIAR and the network of Centers form a highly decentralized partnership. Most operational decisions are made in a decentralized way. Therefore subsidiarity is not a significant problem.</td>
</tr>
<tr>
<td>Comparative advantage</td>
<td>Medium</td>
<td>The World Bank has relevant strengths that are only partially replicated among the CGIAR cosponsors. The CGIAR contributes to furthering the World Bank’s development and resource mobilization objectives in fields basic to its operations, but does not compete with regular World Bank operations. However some of the strength the World Bank could deploy in support of the CGIAR and some of the benefits it could draw from its involvement have not been realized. At the country level the World Bank is not seriously engaged with the Centers in regard to multi-sectoral views, development analysis, and country-level presence and knowledge. There are very few linkages between World Bank country operations and the Centers. The World Bank has a global mandate, reach and convening power, but has not fully exploited its capabilities to produce a global vision for the CGIAR.</td>
</tr>
<tr>
<td>Multi-country benefits</td>
<td>High</td>
<td>The CGIAR and its affiliated Centers produce global public goods and regional public goods (research findings, germplasm conservation) that would be more difficult to produce country by country.</td>
</tr>
<tr>
<td>Leverage (narrow)</td>
<td>High</td>
<td>Narrowly defined as the relationship of World Bank funding to total CGIAR funding the amount of leverage is appropriate. The World Bank’s contribution does not exceed the guideline 15 percent of total funding of the CGIAR and Centers (in fact it is under 10 percent and declining as a percentage of total CGIAR funding.)</td>
</tr>
<tr>
<td>Leverage (broad)</td>
<td>Medium</td>
<td>In the founding phase of the CGIAR, it is probable that the World Bank’s contribution was essential as a lever to other donors. It is probably still important although, in the current situation where agriculture and agricultural research have reestablished their importance in light of the food price crisis, the World Bank’s leverage is probably not as essential as it was to ensure adequate funding to the Centers, although it is still important. The World Bank has not increased net funding since 2001, but it has worked successfully to limit the effects of Japan’s reduced contributions. It encouraged two more donors and foundations to joint the CGIAR. For most of the past two decades, the World Bank has taken the lead in making agriculture an international development priority. In terms of leverage of human resources for development, the World Bank has not achieved as much as it could in regard to the engagement in development of the 3,300 scientific staff at Centers, in the opinion of the Panel.</td>
</tr>
<tr>
<td>Managerial competence</td>
<td>Medium</td>
<td>The managerial competence of the System Office, compared with the norms of Global Funds, is, in the opinion of the Panel, generally acceptable. However there are structural weaknesses. In particular unclear responsibilities and</td>
</tr>
</tbody>
</table>
7.3.14 Panel Recommendations on the Role of the World Bank in the CGIAR

Alternatives include:

1. The status quo
2. Intensification (status quo commitments plus new Fund/programmatic commitments)
3. Disengagement (donor only, no special involvement)
4. A new balance (the World Bank continues to chair and manage the Fund, and intensifies its strategic engagement, but disengages from operational management commitments)
5. Increase the engagement of the World Bank ARD with Centers; and with the CGIAR in regard to strategy development, general advice and partnerships.
Recommendation

The World Bank should maintain its special relationship with the CGIAR and its affiliated Centers. It should focus its engagement on strategy, resource mobilization and allocation and building the substantive links between the World Bank and the development community including its own Agriculture and Rural Development Sector. The World Bank needs to disengage from operational management of the CGIAR network of Centers. The leadership of the World Bank in consultative group arrangements argues strongly that the World Bank should assume the leadership of the proposed CGIAR Fund for Agricultural Research. The World Bank’s convening power would be an essential ingredient of success. The World Bank should chair the new Fund and Co-Chair strategy and replenishment-like triennial meetings with the proposed Consortium.
Notes

1 AGM06 Business Meeting, Member Coordination Forum, Harmonizing Evaluation Activities in the CGIAR: A discussion note.
3 [http://www.cgiar.org/pdf/agm06/agm06_mcf_member_funding.pdf](http://www.cgiar.org/pdf/agm06/agm06_mcf_member_funding.pdf), page 2.
5 Ibid. p. viii.
6 The World Bank charges the MDTF a commission of 0.175 percent of throughput.
8 See the Development Grant Facility 2000 FY00 DGF Annual Review aFY01 DGF Budget (R2000 – 129, June 23), Annex 4, p.5. The guidelines continue, “After no more than three years, a decision should be made either to move the secretariat out of the Bank, or to keep it in the Bank with strong donor support, or to discontinue the effort due to lack of donor interest or other reasons. In exceptional cases, where there is strong donor interest in maintaining an in-Bank secretariat after three years, then this secretariat should be financed 100 percent by partners.”
10 Ibid. Appendix 8, Chairman’s Summary: Committee on Development Effectiveness. p. 58.
11 Ibid, p. 29.
CHAPTER 8
PROGRAM INNOVATIONS

8.1 Review of Challenge Programs and SWEPs

8.1.1 Development of the Challenge Programs

Global Challenge Programs were conceived by the Change Design and Management team, as part of the series of reforms proposed to the CGIAR in 2001. They addressed “the need for the System as a whole to take on global challenges in cooperation with a wider range of partners”, and had the objectives of:

1. Shifting the research of the CGIAR from being the aggregated activities of 16 Centers to a more System-wide, programmatic approach that exploited cross-Center synergy. The team envisaged Challenge Programs achieving restructuring of up to 50 percent of the System’s research agenda in this way, possibly within five years.

2. Improving partnerships and open the CGIAR to wider participation of NARS, ARIs, regional organizations and other stakeholders. Regional fora and GFAR would play significant roles in agenda setting and program development.

The Challenge Programs would be derived from the current CGIAR mission, reflect Center core competencies, and allow Centers to significantly “up their game” by tackling issue of global and regional importance with the best partners for the task. In so doing, the programs would attract significant new funding.

The CDMT proposed a plan for Challenge Program development, operation and governance. In response to concerns from stakeholders about existing System-wide Programs, the CDMT proposed that Challenge Programs have a well-defined development process, clear requirements and independent governance. The CDMT suggested that this initiative start with two to four Programs.

The task of developing specific procedures for Challenge Programs fell to the interim Executive Council. The Executive Council had proposed to AGM 2001 that a “learning by doing” approach be taken, involving a few initial pilot projects “so that the System could explore ways of improving CP design and implementation.” AGM 2001 approved this plan and proposed that these pilots be drawn from 10 proposals already submitted to the CGIAR.

The interim Executive Council defined Challenge Programs as “time-bound, independently-governed programs of high impact research, that target the CGIAR goals in relation to complex
issues of overwhelming global and/or regional significance, and require partnerships between a wide range of institutions in order to deliver its products.”

Any organization, inside or outside the CGIAR, could propose, and lead on, a Challenge Program. The proposal and evaluation process involved three stages: concept note, pre-proposal and full proposal, each with a set of criteria, 40 in all. The Science Council would manage the evaluation of proposals at all stages and final decisions would be made by ExCo. Once awarded, Challenge Programs would be monitored by the Science Council through the CGIAR MTP, and reviews would be done like EPMRs for Centers, and given to ExCo for comment to AGM.

The first ExCo meeting initiated the process of Challenge Program selection and also the selection of several “pilot” projects from 10 ideas solicited from Centers. For reasons of speed ExCo side-stepped the new Challenge Program rules and asked the Center originators of these ideas to submit at the pre-proposal stage. Hence, from November 2001, two distinct Challenge Program activities were underway, “pilot programs” and the “regular process” of new Challenge Program selection, development and implementation.

8.1.2 The Accelerated “Pilot” Challenge Programs

In 2003, two programs, Water & Food and HarvestPlus, were initiated on the basis of satisfactory full proposals. A third, on breeding a range of crops for increased drought stress, was delayed by a range of concerns, mostly regarding partnerships and the business proposition. At the next ExCo it was given a one year “inception phase” to develop its plan and seek funding, which eventually led to the full program known as Generation. A pre-proposal for a fourth program, on natural resource management research in sub-Saharan Africa, was also accepted for further development in 2003. This program actually arose through the “regular process” (see below) and was led not by a CGIAR Center but by the Forum on Agricultural Research in Africa (FARA). This proposal did not identify a specific, time-bound, global research activity, rather it was focused on building research partnership and innovation in Africa. After much discussion, it was granted an 18-month inception period in 2004, which was followed by a review.

Pre-proposal criteria proved very challenging for development of these pilot programs. For instance, of the 10 concepts from which pilots were selected, ExCo considered only one to have sufficient NARS links. As pilot development progressed, other issues of concern to ExCo emerged such as high transaction costs and financial competition with Centers. It became evident that while donors had made commitments to Challenge Program pilots, this was not entirely new money, particularly in the case of the World Bank. The lack of a strategic framework for Challenge Programs also emerged as a concern. At ExCo3, it was observed that “The incremental approach being used by the CGIAR for identifying CPs is not likely to ensure that the CGIAR will end up with an optimal portfolio of CPs in terms of meeting
the needs and objectives of the System This means that it would be useful to take a proactive approach, develop a vision of where the CGIAR wishes to end up over time, and identify CP themes that best fit that vision.” ExCo was truly learning by doing, and these concerns contributed to the “freezing” of the “regular process” of new Challenge Program development in 2003 and preparation of the first “lessons learned” review (see below).

Performance of Pilot Challenge Programs

The following paragraphs summarize each pilot Program and its performance followed by a summary of lessons learnt. The Panel include the Sub-Saharan Africa (SSA) Challenge Program, which was funded from the first cycle of new proposals.

Established in 2003, CIAT and IFPRI hosted the HarvestPlus CP. It has, as its objective, the reduction of micronutrient malnutrition amongst poor populations of Africa, Asia and Latin America through breeding and disseminating nutrient-dense staple food crops. Phase 1 of the project has made progress in identifying nutrient-rich germplasm in rice, wheat, maize, beans, sweet potato, pearl millet and barley. A Review of this first phase⁹ concluded that the Program is addressing an issue of global relevance and enhancing the performance of Centers through innovative research and creation of links outside the System. The review identified a need for the Program to move, in its second phase, to demonstrating “proof-of-concept” through working closely with NARS and with germplasm obtained so far to demonstrate the potential for reducing nutrient deficiency, in the context of the complex range of factors that affect this. The Program was also encouraged to put more of its funding out to partners through competitive projects, as it had originally proposed. The Review considered management through a Program Advisory Committee to be effective, and suggested some greater independence from its host institutions. This Program receives over half of its funding from the Bill and Melinda Gates Foundation.

The Challenge Program on Water and Food began an inception phase in 2002 and its full implementation phase in 2004. The International Water Management Institute (IWMI) hosts this CP. The program’s goal is to increase the productivity of water used for agriculture, leaving more water for other users and the environment. It has five research themes: (1) crop water productivity improvement, (2) water and people in catchments, (3) aquatic ecosystems and fisheries, (4) integrated basin management systems, and (5) global and national water and food systems. The Program identified nine “benchmark basins” for this research and has allocated over 60 percent of its funding to competitive projects addressing these themes and basins. A Review of the first phase¹⁰ concluded that the Program has enhanced valuable cross-linkages between Centers, NARS, ARIs and NGOs that the partners would not have achieved individually. However, the Review also considered the Program lacking in focus and strategy, and operating more like a platform or a loosely linked network of projects. The Review found initial partnerships to be too CGIAR Center-focused, and IWMI, its host, to have too much control of the Program.
Subsequent actions were taken to reduce the numbers of basins and projects and to move towards more independent management. This has only partly addresses this problem according to the Science Council, but the project has been approved to continue.

The Generation Challenge Program began an inception phase in 2003 and was approved for an implementation phase in 2004. CIMMYT hosts this CP. The Program’s objective is to use plant genetic diversity, advanced genomic science and comparative biology to identify useful traits such as drought tolerance or disease resistance in staple crops and to build these traits into breeding programs to produce better varieties for resource-poor farmers. Its five sub-programs each contain a portfolio of projects, mostly awarded through competition or commission. Principle research partners are Centers and ARIs. A review of the Program concluded that it has made a very significant scientific contribution to improving the characterization of a wide range of staple crops. Further, Generation CP has created a dynamic research network linking outside the CGIAR, which would not have occurred otherwise. However, the Review notes that the Program is too dispersed over a range of projects and crops and recommends a more strategic focus on a set of key deliverables, as well as concentrating on “proof of concept” while working more closely with NARS to build capacity and to breed and test varieties. The Review also called for a change in governance to establish a more independent Executive Board.

The Forum for Agricultural Research in Africa (FARA) hosted the Sub-Saharan Africa Challenge Program that began an inception phase in 2004. The project’s goals are to develop technologies for sustainably intensifying subsistence-oriented farming systems under sound natural resource management, to improve the accessibility and efficiency of markets for smallholder and pastoral products, and to catalyze the formulation and adoption of policies that will encourage innovation to improve the livelihoods of smallholders and pastoralists. Based on the concept of integrated agricultural research for development (IAR4D), this project has not fit the Challenge Program model of a time-bound project focused on high-impact, globally-relevant research. Therefore, it was given an 18-month inception phase to help it develop a research strategy and become program-based on its nine Pilot Learning Sites, each associated with a CGIAR Center. Progress in the inception phase was reviewed by an EU team. An External Review followed. Both reviews found the concept and plan commendable but reported slow progress in the development of a clear research program through the Pilot Learning Sites, and in gaining necessary commitment of all stakeholders in the process. The External Review recommended that the inception phase be extended to allow more time for proof of concept.

Considering all four pilot Programs and their external reviews, the emerging impression is that the first three have added value and built partnerships that would not have been easily achievable by individual Centers through their normal activity, while the SSA CP has still to demonstrate this. The Programs focused on crop genetic improvement, HarvestPlus and Generation, have fit the Challenge Program criteria well and have
progressed smoothly. The Programs focused on natural resource management (NRM) Water and Food and SSA, have had more difficulty in this regard.

All four Programs have been challenged in their next stages to focus their research program more tightly and to achieve “proof of concept” with stakeholders. Challenge Programs were established not only to undertake cutting edge, valuable science, but to deliver products. It will therefore be very important to see how these four pilots demonstrate their potential for uptake and impact in the next few years.

Lessons Learned

The pilot Challenge Programs have benefited from a number of “lessons learned” reviews. In 2004, the Science Council and the CGIAR Secretariat conducted the first study, which focused on programmatic and governance issues. It reaffirmed that Challenge Programs should concern the production of new science through partnerships that provide new resources or bring added value to scientific research and its delivery. HarvestPlus and Generation CPs have achieved this by engaging advanced research institute partners to develop new tools and knowledge that could be applied across the range of Center mandate crops. At the time of the lessons learned review, Water and Food CP, while establishing a valuable network of institutions, had yet not generated a focused, scientific program. The review acknowledged that Challenge Programs were just one “organizational instrument” that may not be appropriate to all inter-Center research collaborations. The review also maintained that Challenge Programs should be strongly linked to research priorities of the CGIAR System.

On governance, the review emphasized the value to Challenge Programs of independent governance, drawing clear boundaries relative to the normal activity of host Centers and institutions.

In a second, joint exercise with the CGIAR Secretariat in 2007, Science Council reaffirmed the importance of the original Challenge Program model, and how HarvestPlus CP and Generation CP had followed this model more closely than the other Challenge Programs, performing better in terms of the speed of establishing effective and added-value partnerships and outputs. However, they also noted that the Challenge Program model fits these crop genetic improvement projects better because they are less complex than NRM-related projects such as Water and Food CP and SSA CP.

Lessons learned on governance converged on a preferred model for a Challenge Program that involved an executive group that was independent of the host institution (usually a CGIAR Center) in making programmatic decisions, but which involved the host institution in matters relating to their ultimate legal and financial responsibilities for the Program. Programs should have strong line management, good financial management, monitoring and evaluation and should establish clear financial policies and service
agreements with the host institutions. The practice of several Programs to fund a portfolio of research projects on a competitive basis was seen to have advantages in terms of science quality, but disadvantages in terms of transaction costs, strategic focus and team building, and therefore needs to be done carefully.

Finally, as with the earlier lessons learned study, the 2007 study presented an analysis of funding of Challenge Programs which concluded that they had brought new funding into the CGIAR System and not detracted from Center funding.

8.1.3 The “Regular Process”

In late 2001 at ExCo1, a plan was put in place to generate program ideas and pre-proposals for consideration over a 10-month period. This generated 41 concept notes. The interim Science Council selected thirteen of these for development into pre-proposals in 2002, and put to ExCo4 in 2003 a proposal that four of these be supported for development of full proposals.16

However, by this point, problems with pilot programs had arisen and some ExCo members were concerned that new Challenge Programs would begin to define a research strategy before a new Science Council was in place for this purpose. Therefore ExCo4 decided that the regular CP process should be “frozen” until a strategic framework was in place and the new Science Council began its work. It also recommended that, “in the interim, the experience with the pilot CPs should be reviewed to draw lessons that can help with the regular CP process,” and that “the CP process should be adjusted as necessary based on the strategic framework, lessons from pilot CPs, and views of the new Science Council.”

The “regular process” was put aside from 2003 until 2005, when ExCo8 agreed that it should re-consider opening up the process for new Challenge Programs as “one of CGIAR’s tools for implementing System Priorities.”17 At ExCo10 in May 2006, the Science Council proposed that new proposals for Challenge Programs, as well as System-Wide and Eco-Regional Programs (SWEPs), be considered for review and endorsement only if they address the goals and scope of CGIAR System Priorities.18 However, ExCo did not endorse this proposal which recommended that Challenge Programs be linked to System Priorities. It recommended that the freeze on CPs be removed, and that the process of selecting new programs be based on guidelines approved in 2001. While this decision engendered considerable debate, it stood. In 2006, ExCo11 agreed that “the approval of new Challenge Programs will be based on the current process which had been previously approved by the CGIAR Membership, and linkages with the CGIAR-approved System Priorities will be made explicit in the call for concept notes. Science Council views on Challenge Programs as tools to implement priorities will be made available as background documents to the process for the benefit of project proponents.”19
The regular process of Challenge Program development resumed in 2007 and 41 concept notes were received, most of which were considered to be lacking, particularly in partnerships.\(^\text{20}\) The Science Council proposed five concept proposals to ExCo for pre-proposal preparation, of which ExCo selected three; climate change, combating desertification and high value crops.\(^\text{21}\) In ExCo’s view the resulting pre-proposals were of low quality, but ExCO “recognized these are important research areas and the CGIAR should signal a willingness to move forward.” During discussions at ExCo, concerned was expressed about the reputational risk to the CGIAR if it could not, after seven years, assemble a Challenge Program on a topic as important as climate change in agriculture. It is noteworthy that climate change had been one of the original 10 ideas considered for pilots in 2001. These three pre-proposals were designated for preparation towards full proposals. Those on climate change and combating desertification were considered at ExCo 14 on 13-14 May 2008, and only the climate change proposal accepted.\(^\text{22}\)

In 2007, the lessons learned exercise by the Science Council specifically considered the “regular process” and its performance (Science Council and CGIAR Secretariat 2007). It observed that, while the great majority of concept notes in both cycles came from potential partners and not Centers, most failed to reach pre-proposal stage because they did not address the criteria of the call, particularly the need to address the IPG research agenda of the CGIAR. The same was true for advancement from pre-proposal to full proposal stage. As a result, CGIAR Center-led consortia (which always included external partners) predominated at both stages. Very few ARIs made independent proposals, although they were well represented in Center-led proposals. The Science Council concluded that the failure to attract ARIs with the present System may be related to the inability to “own” the concept proposed and the complex criteria for proposals.\(^\text{23}\) On the one hand, the Science Council perceives this dominance by Centers as problematic: “with the selection criteria expecting CGIAR Center involvement … and with the Alliance assuming a collective responsibility for working [on concept notes and pre-proposals], it is increasingly difficult to build viable alternative consortia to address a challenge.” On the other hand, they conclude that the Centers are effective deliverers of good proposals as long as they take the responsibility to encourage external partners to help Centers reach beyond their areas of expertise.

In conclusion, while there have been two cycles of Challenge Program development between 2001 and 2008, with tens of concept notes submitted, with exception of the SSA Challenge Program, which is still in a trial phase, no new Challenge Programs have been initiated. Further, externally-led proposals have had a difficult time in the proposal process, while CGIAR-led projects, with external partners, have done better. Despite early concern that the Challenge Program development be closely integrated into the System Priority process, this has not been achieved.
8.1.4 Stakeholder Views

For this review, stakeholder views on the Challenge Programs were obtained as part of the Independent Review Panel’s survey of informed stakeholders, which is described in Appendix 1. The Survey noted that Challenge Programs were established by the CGIAR in 2001 as time-bound, independently-governed programs, whose funding was intended to be additional to that of the Centers, and asked of these stakeholder groups:

- How important are the Challenge Programs to the success of the CGIAR?
- How effective have the Challenge Programs been?

Figure 8.1.1 shows the proportion of a particular stakeholder group surveyed that indicated the Challenge Programs are “important or very important”, or that they have been “effective or very effective”. Four groups are included for comparison, but note that the Science Council and Challenge Program management figures are from small samples, while the others are substantial.

Figure 8.1.1: Percentage of Respondents from Four CGIAR Stakeholder Groups

![Bar chart showing the percentage of respondents from four CGIAR stakeholder groups who believe the Challenge Programs to be important and effective.](chart)

Source: Independent Review Panel Survey

Figure 8.1.1 shows the percentage of respondents from four CGIAR stakeholder groups who believe the Challenge Programs to be important and effective. The surveyed groups were Challenge Program management (N = 9) Science Council members and Panel members (14), ExCo and CGIAR Members (78) and Center Board Chairs, DGs and DDGs (52). See Appendix 1 for a description of the survey process.
Challenge Program management clearly were positive on their importance, as were more than half of ExCo and Members, and Science Council respondents. The majority of Center Board Chairs, DGs and DDGs believe Challenge Programs to be of little importance to the success of the CGIAR.

With respect to their effectiveness, and with the exception of Challenge Program management, the great majority of respondents in these groups believe the Programs have, overall, been ineffective so far. This common judgment hides a diversity of reasons. Some respondents observe that some Challenge Programs have been much less effective than others, pulling down an overall assessment. Others maintain that Challenge Programs are too new to be judged for effectiveness. The two key stakeholder groups, Centers and Members, identify similar shortcomings but place their emphasis very differently, as follows.

Among Board Chairs, DGs and DDGs the predominant concern is that Challenge Programs have failed to bring promised new money into the System. With the exception of Bill and Melinda Gates Foundation funding for HarvestPlus, Challenge Programs compete with Centers for funding, setting up almost “parallel Centers” and extracting high transaction costs from Centers for what is seen as obligatory participation. One Board Chair observed that Centers view Challenge Programs now as a top slice on their budgets, and none are prepared to “lose out” on this, resulting in artificial constructs and fabricated collaborations that further reduce their effectiveness.

A number of Members shared this concern about insufficient funding and its effects on Centers, and also cite problems of focus, transaction, governance and accountability. However, the concern most expressed by Members is that Challenge Programs have failed to involve external partners, e.g. NARS and ARIs, in their development and leadership, relative to original objectives. Some of the Centers expressed this view as well.

Over half of respondents from all groups state that the way in which topics are selected and the process of application and selection of projects is inefficient and ineffective and needs to be changed.

Throughout commentary by all respondents there is acknowledgement that Challenge Programs have succeeded in increasing inter-Center collaboration, but also the view that there should be alternative means of achieving this objective that are not so inefficient and costly to the System.

In 2007, the Alliance Deputy Executive asked Centers whether Challenge Programs improved partnerships, added value to scientific work, and improved funding for Centers.24 Their results concur with those of the Independent Review Panel’s survey of informed stakeholders. For each of these questions there was a broad range of views from negative to positive, which probably reflected both differences between Challenge
Programs as well as the different kinds and levels of involvement of particular Centers with Challenge Programs. Centers expressed commitment to a partnership approach with other Centers and external organizations, and identified instances where Challenge Programs generated new partnerships and added value to existing research by taking an inter-disciplinary approach. However, there were balanced positive and negative views on whether Challenge Programs had achieved more cross-Center collaboration than would have occurred without them, with “the overall centre of gravity … in favour of CPs having enhanced partnerships, and established good platforms for interaction”.

The majority of Centers responding considered Challenge Programs to have improved funding, but several observed that high transaction costs and difficulty dealing with Challenge Program administrations counterbalanced Center gains in staff and funding. Most Centers believed felt that the Challenge Programs had diverted funds from other funding to Centers.

8.1.5 Performance of the Challenge Programs

The Panel will consider Challenge Program performance against three criteria associated with the original CDMT concept. Have the Challenge Programs:

- addressed issues of global relevance and improved CGIAR science and impact?
- created valuable new partnership models and partnerships?
- mobilized more stable, long term funding for Centers?

In addition to these criteria, the Panel will also consider the process by which Challenge Programs have been developed and implemented. At this point, it should be said that the process has been very slow, and as a result there are few results on which to evaluate Challenge Program performance in terms of science, partnerships and funding.

Improving CGIAR Science

As research subjects of global relevance, the four current Challenge Programs have a good track record. They were selected through a competitive process that stipulated the need to address “issues of overwhelming significance”, to make “important advances in science” and to address the CGIAR mission and goals. The External Reviews of HarvestPlus, Generation and Water and Food Challenge Programs all identify significant scientific achievements in the Programs’ first phases. The Science Council directions to External Reviews posed perhaps a more important question; has the Challenge Program approach “added value” to CGIAR science and its impact, relative to conventional Center-based projects. The External Review of HarvestPlus points to specific scientific added value through research, while for Generation and Water & Food Challenge Programs, External Reviews identify added value arising from the diverse institutional resources created through the Programs and their potential for generating innovative science in a future.
phase. The SSA Challenge Program seeks to add value to existing research activities through its IAR4D approach, but this has not yet been demonstrated. On balance, Challenge Programs that have progressed have improved CGIAR science, particularly through stimulating partnerships.

**Improving Partnerships**

The four pilot Programs were awarded through a process that required partnerships with two or more Centers and two or more NARS, and which strongly encouraged partnerships with ARIs. They all have established extensive, but quite different, partnership networks. The External Review of HarvestPlus notes the importance of the unique multidisciplinary nature of the 60 research and implementing institutions involved that brings human nutrition and food science together with plant breeding and molecular biology. The Review of the Generation Challenge Programs, and commentary on this by Science Council, congratulates the Program on mobilizing science from outside the CGIAR and creating broad networks of participating organizations with the necessary expertise, which would not have been achieved without the Challenge Program. Similarly, the review of the Water and Food Challenge Program observes how it “forced a more collaborative attitude onto Centers and collaborators and so established a precedent for taking advantage of available synergies” in such a way that IWMI and other Centers could not have done alone. The External Review of the SSA Challenge Program observes “One of the most striking features of the SSA CP is its ability to coalesce a diverse group of people and institutions at the local, regional and international level in an effort to implement a new mode of doing research and development business, the IAR4D, recognizes inherent weaknesses of current SSA R&D Systems.” However these African partnerships are still developing and have yet to demonstrate their effectiveness.

Problems with partnerships have been noted in Reviews. Many of these are typical of new, multi-institutional undertakings, but it is interesting to highlight those that arise with several Challenge Programs. Some Programs are criticized for creating too many partners or too loose a partnership network. With respect to Centers as partners themselves, for reasons of funding and visibility with donors, many Centers try to “squeeze into” particular Challenge Programs which, if successful, can lead to complex workplans and reduced focus. The Alliance review of Challenge Programs observes that the process has been more beneficial so far for internal (cross-Center) than external partnerships, and also that “there is concern that some CP partnerships are forged just for the sake of ticking the ‘partnership’ box.” Establishment of open, competitive grant schemes, which all Programs have done to a greater or lesser extent, has attracted good research, but sometimes at the expense of constructing a strong collaborative team of partners. Several first phase Reviews noted that resources were too concentrated with Center partners initially and needed to be more distributed across partner networks. Finally, it is important to stress that Challenge Program partnerships were intended not only for the generation of science outputs but for the practical implementation of those outputs. With reviews of pilot
projects calling for greater emphasis on “proof of concept”, it will be important to see how these partnerships deliver in future stages.

With respect to the generation of new Challenge Programs, Center-led partnerships have dominated successful proposals at each level, while NARS-led concept notes, which constitute the majority of submissions, have fared poorly, and ARI-led partnerships have been few. To some extent this pattern must reflect the disincentive to NARS and ARIs implicit in a long, three-stage selection process, in which applicants first give up their good concepts to open competition and then contend with a diversity of demanding proposal criteria, including complex governance arrangements and the encouragement to “line up” other funding sources before submitting a proposal to the CGIAR. It is not surprising that Centers have led successful proposal submission, as they have both a strong incentive and ample experience in satisfying these complex CGIAR proposal criteria. The Science Council has proposed ways to simplify this process that might make it attractive to non-Centers.27

The Panel therefore concludes that Challenge Programs have improved partnering between Centers and created new and valuable external research partnerships. External partnerships have arisen largely through Center-led consortia rather than efforts of external institutions. This satisfies some partnership intentions of the original Challenge Program concept, but not the CDMT view that external organizations would build Challenge Programs together with Centers such that: “the process is demand driven and bottom up, with the full participation of major CGIAR stakeholders including NARIs, CGIAR Centers, ARIs, universities, private sector, NGOs, and development agencies [such that] the identification of research priorities will be combined with opportunities for strengthened partnerships.”

The evolution of Challenge Programs has struggled under different partnership concepts. One the one hand, external organizations can be partners in the sense that they join Centers in research projects. This is an internal CGIAR process, and this is basically how Challenge Programs have been designed. Whether or not an external institution proposes, or even leads a Challenge Program, the Program itself is selected, managed, monitored and evaluated entirely according to CGIAR-determined criteria and procedures. These kinds of external partnerships are generated by Centers all the time, which begs the question raised by some stakeholders whether Challenge Programs, with their separate processes and management, are a cost effective way of developing external partnerships.

Another partnership concept would have external organizations sharing and building a common research agenda with the CGIAR, owned and managed by both. This was part of the CDMT vision, and is very similar to that envisaged for the Science Council’s Standing Panel on Mobilizing Science (see Section 6.3.4). This effort would contribute to building the international infrastructure for agricultural research (see Chapter 13).
Both approaches to partnership have merit, but cannot coexist comfortably. The Challenge Programs have evolved largely along the former line, but have made specific efforts to give the process more external “ownership”. These efforts have tended to create more complexity than real ownership. For instance, the three stage competitive process aimed at soliciting partnership and leadership from the broad agricultural research community is complex and has not been very rewarding to external partners. Independent management of Programs, separately from CGIAR Centers, creates a kind of external ownership, but at a considerable transaction cost, given that ultimately these remain CGIAR Programs accountable through Centers.

**Improving Center Financing**

From the outset, Challenge Programs were seen as a means to bring more and new financing into the CGIAR, by identifying programs of outstanding importance and value, and by demonstrating to donors that Centers could work together with each other and with partners. They were promoted as big budget undertakings, and they have been successful in attracting substantial funding from CGIAR donors. This includes multilateral donors such as the World Bank and European Commission and bilateral donors such as the Netherlands, Switzerland, France and the UK. The contribution of the Bill and Melinda Gates Foundation to HarvestPlus has been heralded as particular proof of the value of Challenge Programs in attracting new money.

In two “lessons learned” reviews, the CGIAR Secretariat has provided data showing how new Challenge Program funding has contributed to growth of funding to Centers. Challenge Program funding has increased over time. Further, when this funding is removed from annual funding figures, leaving only funding to Centers, this is still increasing over the same period. Therefore, the reviews conclude that Challenge Program funding has not been associated with a decline in other funding to Centers.

However, according to the Independent Review Panel’s survey of informed stakeholders and discussions with Center managements, Centers believe that Challenge Programs have diverted funding away from Centers. These opposing views are easily reconciled. In aggregate, the Challenge Program portfolio is not affecting total CGIAR funding such that the residual non-CP funding to the CGIAR is in decline, but it may be affecting the way non-CP funding may have grown had the Programs not existed. Of course, it is impossible to say what kind of funding growth the CGIAR would have experienced in the absence of Challenge Programs, but it is possible to examine the effect of Challenge Programs on the patterns of funding by individual donors.

The level of CP funding fluctuates widely from year to year and some donors contribute less than $1 million total to the programs. In order to determine if funding allocations to the CPs were either incremental or actually offsetting amounts that would have gone to the Centers, the Panel reviewed a couple of major CP contributors. Specifically, they look...
at the historical level of funding going to the Center from the World Bank, United Kingdom, and the European Commission. The Panel excluded the Bill and Melinda Gates Foundation as it is assumed that this is incremental funding.

The World Bank is a clear example of how resources are being diverted from Center projects and allocated to CPs. Since 2002, the WB has provided funding in the amount of $50 million annually. In 2003, $6.9 million of the $50 million was diverted to CPs. At the same time, increases in System-level expenses were also reducing the net amounts flowing to the Centers. Therefore, World Bank funding is certainly not incremental. In fact, by 2007, total funding to the Centers of $35.3 million was actually $8.9 million less than the Centers received in 1997 ($44.2 million).

Table 8.1.1: World Bank Allocations to the Challenge Programs

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<tbody>
<tr>
<td>Center Funding</td>
<td>44.2</td>
<td>42.5</td>
<td>43.5</td>
<td>49.3</td>
<td>38.8</td>
<td>38.9</td>
<td>36.1</td>
<td>32.9</td>
<td>29.9</td>
<td>34.3</td>
<td>35.3</td>
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<tr>
<td>System Level/Other</td>
<td>.8</td>
<td>2.5</td>
<td>1.5</td>
<td>.7</td>
<td>11.2</td>
<td>11.1</td>
<td>7.0</td>
<td>9.0</td>
<td>13.6</td>
<td>7.4</td>
<td>8.2</td>
</tr>
<tr>
<td>CP Funding</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6.9</td>
<td>8.1</td>
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<td>50</td>
<td>50</td>
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<td>50</td>
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Source: 2002-2007 CGIAR Financial Reports

Not all of the decline in funding is attributable to the Challenge Programs, but the $36.2 million of funding that has gone to Challenge Programs to date would have been additional unrestricted funding for the Centers. The full impact of the combined System-level expenses along with the Challenge Program contributions has significantly reduced overall World Bank funding that goes directly to Centers, especially if viewed on a constant dollar basis. Figure 8.1.2 below shows the decline of $23 million in purchasing power if viewed on a 2007 constant dollar basis.

Figure 8.1.2: World Bank Funding to Centers 1997-2007, Nominal vs. Constant Dollars

Source: 2002-2007 CGIAR Financial Reports
Note: Inflation index based on rates developed by CGIAR Secretariat and reported in Annual Financial Reports 1997-2007.
Another example of offsetting between Center and CP funding is the United Kingdom funding. To date, the UK is the largest contributor to the Challenge Programs, with total contributions from 2003-2007 of $44.3 million. The question is how much of the $44.3 million contributed over the past four years to CPs would have gone to the Centers. Based on discussions with representatives from the UK/DFID (UK Department For International Development), the Panel confirmed that in DFID’s own words, “the CPs did not bring in additional funding “ and CP contributions to date would have gone to the Centers. Some of the major increases in UK funding years are due to organizational windfalls and, from the donor perspective, are not related to incremental funding for the CPs. Again, a second issue with UK funding is that such funding would have probably gone to the Centers on a fully unrestricted basis according to UK/DFID sources.

Table 8.1.2: United Kingdom Allocations to the Challenge Programs

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</thead>
<tbody>
<tr>
<td>Center Funding</td>
<td>10.2</td>
<td>11.5</td>
<td>13.9</td>
<td>14.9</td>
<td>19.2</td>
<td>24.8</td>
<td>26.8</td>
<td>26.8</td>
<td>33.8</td>
<td>36.3</td>
<td>27.0</td>
</tr>
<tr>
<td>CP Funding</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8.5</td>
<td>10.4</td>
<td>7.8</td>
<td>17.6</td>
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<tr>
<td>Total</td>
<td>10.2</td>
<td>11.5</td>
<td>13.9</td>
<td>14.9</td>
<td>19.2</td>
<td>24.8</td>
<td>26.8</td>
<td>35.3</td>
<td>44.2</td>
<td>44.1</td>
<td>44.6</td>
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</table>

Source: 2002-2007 CGIAR Financial Reports

Another interesting example is the EC. EC funding has an unusual pattern due to complications in 2006 that resulted in a loss of EC funds for the period and a doubling of the funding in 2007 to resolve the issue. In general, however, the EC contribution is about $30 million annually. This level has not changed significantly despite the fact that $37.3 million of funding has gone to the CPs since 2004. Since the CP funding from the EC is substantial and the total EC funding has not increased to offset it, there is a net reduction in EC funding to the Centers.

The Panel would also observe that all Challenge Program funding is restricted. Therefore, to the extent that it offsets other funding, it may be reducing levels of core funding to Centers. This is certainly the case with World Bank funding as its contributions to Challenge Programs have been diverted directly from the $50 million that would have been available to Centers on an unrestricted basis.

It is interesting to note that, were all Challenge Program funding counted as “unrestricted” funding, the total unrestricted funding levels would exceed restricted levels in each of the years 2004-2006. Figure 8.1.3 shows funding level details.
To conclude, offsets are occurring and the assumption that Challenge Program funding is incremental may be true in some cases, but it is certainly not the case with all donors. In some cases, Challenge Program funding comes at the expense of other Center programs, and some of this offset funding would have been unrestricted.

Centers note that, besides offset, there are more subtle, qualitative costs of Challenge Programs that reduce their benefits. These include the higher transaction costs of large, multi-partner projects (both in terms of large Program management costs and the costs to Centers of working through these managements to other partners), additional costs associated with hosting of Challenge Programs, and the costs of participating in the lengthy process of Program preparation, which many Centers feel obliged to join. Some of this is simply the cost of being more programmatic, and part of the broader transaction cost of implementing System Priorities (Section 12.1).

The Challenge Program Process

Development of Challenge Programs was always intended to be a careful, “learning by doing” process. Nonetheless, their progress has been disappointingly slow, and well below expectations. Three of the existing Programs were fast-tracked around the full procedures in 2001. Since then, with the exception of the SSA Challenge Program, no new Programs have been produced. The expectation that 50 percent of Center research funding might be directed through Challenge Programs by 2006 was clearly too ambitious. The figure is closer to 9 percent, and only about half of this actually goes to Centers.28
The process of generating new Programs has been started, stopped and started again. It has not succeeded in attracting worthy project concepts or proposals from external organizations, which was a principle reason for the complex design of the process itself. To date, six of the seven concepts which have reached the full proposal stage have come from Center-led consortia which, it might be argued, could have been generated through a less complex internal process with appropriate incentives to involve external organizations.

Problems identified in the pilots and the “regular process” were the subject of two “lessons learned” reviews, but these have not been used to improve the process. For instance, both reviews have stressed the much better performance of the two pilots aimed at crop genetic improvement (CGI) relative to those aimed at NRM objectives, relating this in part to the better “fit” of CGI style projects to the Challenge Program specifications. The SSA Challenge Program posed a particular problem: its own External Review noted that Challenge Program objectives like delivery of “cutting edge science” were incompatible the SSA Program’s IAR4D plan.29 Despite declared issues of performance and mismatch, no change has been made. The SSA Challenge Program was not stopped – clearly it was valued by stakeholders despite its profound lack of “fit” – nor was there any action to revisit the original specifications for Challenge Programs.

A more significant, unresolved issue emerging from “lessons learned” reviews has been the role of Challenge Programs in the CGIAR System strategy, described in Section 8.1.3 above. With the creation of the System Priorities, Challenge Programs were first seen as strategic instruments for their implementation, satisfying earlier concerns of ExCo that Challenge Programs be proactive and strategic. Both Science Council and the Ad Hoc Committee on Funding of the System Priorities adopted this concept. However, ExCo then reversed this position, concerned that Challenge Programs would be so internally driven as to leave out external organizations. Its decision that Challenge Programs should be linked with System Priorities, as yet one more criterion for their selection, falls well short of integrating Challenge Program development with System strategy. As a result, the System has two largely independent strategic research instruments, Challenge Programs and System Priorities, whose relationship remains unresolved.

8.1.6 The System-Wide and Eco-Regional Programs

System-Wide and Eco-Regional Programs (SWEPs) have a long history in the CGIAR. While they have diverse origins and features, they all involve cross-Center collaborations that are formally recognized by the CGIAR, run by a lead Center and directed at either a research or a capacity-building activity. The Panel examines SWEPs in relation to their future value in implementing a CGIAR research strategy, and their relationships to Challenge Programs. Throughout the development of Systems Priorities and Challenge Programs, concerns have been expressed that the role of SWEPs, as existing models of
programmatic alignment, need to be evaluated and their future place in this process defined. In 2002, the interim Science Council observed there was overlap between Challenge Programs and SWPs and suggested “the relationship among the CPs, SWPs and centre Core programmes is an issue which now need to be addressed.”

In 2006, the Science Council commissioned a review of 17 ongoing SWPs “as appropriate research instruments for implementing CGIAR System Priorities (SPs) for research.” The Science Council followed this review with its own assessment of SWPs as instruments for this purpose. The comments below are based on these studies.

Table 8.1.3: The Fifteen Current System-Wide and Eco-Regional Programs

<table>
<thead>
<tr>
<th>System-Wide Programs</th>
<th>Started</th>
<th>Convening Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative to Slash and Burn (ASB): Partnership for the tropical forest margins</td>
<td>1992</td>
<td>World Agroforestry</td>
</tr>
<tr>
<td>System-wide Genetic Resources Research Program SGRP</td>
<td>1994</td>
<td>Boiversity</td>
</tr>
<tr>
<td>System-wide Livestock program (SLP)</td>
<td>1995</td>
<td>ILRI</td>
</tr>
<tr>
<td>Collective Action and Property Rights (CAPRI)</td>
<td>1996</td>
<td>IFPRI</td>
</tr>
<tr>
<td>System-wide Program-Integrated Pest Management (SP-IPM)</td>
<td>1996</td>
<td>IITA</td>
</tr>
<tr>
<td>Global Mountains Program (GMP)</td>
<td>1997</td>
<td>CIP</td>
</tr>
<tr>
<td>Participatory Research and Gender Analysis program (PRGA)</td>
<td>1997</td>
<td>CIAT</td>
</tr>
<tr>
<td>Urban Harvest, the System-wide Initiative on Urban and Peri-Urban Agriculture (UH)</td>
<td>1999</td>
<td>CIP</td>
</tr>
<tr>
<td>System-wide Initiative on HIV/AIDS and Agriculture (SWIHA)*</td>
<td>2000</td>
<td>WARDA</td>
</tr>
<tr>
<td>System-wide Initiative on Malaria in Agriculture (SIMA)**</td>
<td>2001</td>
<td>IWMI</td>
</tr>
<tr>
<td>Eco-regional Program</td>
<td></td>
<td></td>
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<tr>
<td>Consortium for the Sustainable Development of the Andean Eco-region CONDESAN</td>
<td>1993</td>
<td>CIP</td>
</tr>
<tr>
<td>Consortium for Sustainable Development of the Inland Valley Agro-ecosystem in Sub-Saharan Africa (IVC)</td>
<td>1993</td>
<td>WARDA</td>
</tr>
<tr>
<td>African Highland Initiative (AHI)</td>
<td>1995</td>
<td>World Agroforestry</td>
</tr>
<tr>
<td>Rice-wheat Consortium for the Indo-Gangetic Plains (RWC)</td>
<td>1995</td>
<td>CIMMYT</td>
</tr>
<tr>
<td>Desert Margins Program (DMP)</td>
<td>1997</td>
<td>ICRISAT</td>
</tr>
<tr>
<td>Collaborative Program for Sustainable Agricultural development in Central Asia and the Caucasus (CAC)</td>
<td>1998</td>
<td>ICARDA</td>
</tr>
</tbody>
</table>

* WARDA is passing the role of convening SWIHA to IFPRI in 2008
** SWIM-2 and SIMA ceased to be SWEPs at the end of 2006

Table 8.1.3 lists 17 recent SWEPs, illustrating their diversity of subjects. Some SWEPs arose as inter-Center responses to global initiatives such as the Convention on Biodiversity, which stimulated development of Alternatives to Slash and Burn (ASB). Some SWEPs joined up research or other activities within the CGIAR to enhance practice, coordination or critical mass, for instance for genetic resource management or integrated pest management. Others, including eco-regional programs, focused on specific problems of
agro-ecosystems such as mountains and desert margins or regions, and had substantial NARS links and capacity building activities.

The 2007 review of SWEPs observed that most SWEPs are focused on integrated natural resource management (INRM) and take a strongly participatory approach: “SWEPs in fact have been leaders in the CGIAR in developing the INRM conceptually and in applying it in research design and implementation. This participatory INRM paradigm has now effectually replaced the older eco-regional concept in CGIAR Programming.” The INRM focus of many SWEPs, with its emphasis on NARS capacity-building and regional activity makes SWEPs quite different from Challenge Programs, with the notable exception of the SSA Challenge Program.

With respect to CGIAR System Priorities and the position of the Science Council, some of these SWEPs would probably not qualify as undertaking strategic research directed at IPGs. However, a 2005 review of the Alternatives to Slash and Burn considered its work to be of international significance, providing global public goods that could not be generated by any of the ASB partners acting alone. Similarly, a Review of the Rice Wheat Consortium in 2003 considered it to be “a major achievement of regional significance and contributed to the global application of RCTs into a new (agro) ecosystem” that could be considered a significant International Public Good (IPG).

SWEPs have generally operated on limited funding. Lack of, or inconsistency in, funding has been a major limitation to their effectiveness in some cases, suggest that many could benefit from stronger management and commitment, particularly at regional, benchmark sites, with a greater focus on high quality outputs such as publications, and better monitoring and evaluation. These limitations of SWEPs were part of the rationale for creating Challenge Programs that were highly focused, time-bound and well-funded.

In 2008, the Science Council undertook to assess ongoing SWEPs and to identify the value of SWEPS as instruments for implementation of System Priorities. The Science Council characterize SWEPs as activities “which enhance collective action mainly (but not exclusively) within the CGIAR System (Centers and NARS); they vary in terms of duration (depending on purpose); they are formally established with independent coordination but rely on Center governance”. The Science Council used existing SWEPs to identify and provide criteria for three different profiles for future SWEPs that could support System Priorities:

- System-wide coordination programs for strengthening communities of practice (profile has nine characteristics or criteria)
- System-wide NRM initiatives to address NRM research at a strategic level for IPGs (12 criteria)
- Short-term System-wide research task forces (8 criteria).
This classification recognizes that the focus of many SWEPs on capacity-building and local or regional activities, while not matching the focus of System Priorities, may facilitate the development of programmatic research activities. For instance, System-wide coordination programs may “help indirectly implement CGIAR’s SPs by facilitating Center and partner activities for addressing specific SPs”, while the System-wide NRM initiatives can link locally and regionally focused INRM projects in such a way as to draw out emergent global properties that contribute to international public good.

For each of these proposed instruments, the Science Council study drew up detailed distinguishing criteria, nine to 12 for each, and 28 common criteria for proposal selection.

Finally, the existing SWEPs were reviewed on the basis of these instruments and criteria. Eight were recommended for continuation as System-wide coordination programs with either a regional focus or a subject focus (e.g., integrated pest management), on the expectation that their research activity could be increased. Of the remaining seven which were not recommended for continuation, two fell outside the subject remit of the System Priorities, while five had little prospect of developing a valuable strategic research activity, most being regional networks which could be handed back to local organization.

In conclusion, these two reviews are an important step in exploring how the SWEPs, and the processes that have generated this highly diverse set of inter-Center initiatives, could fit into a CGIAR research strategy as formulated in the System Priorities.

One striking feature of the Science Council review is the way in which it proposes SWEPs as activities in support of System Priorities which potentially link strategic research (the 80 percent) with adaptive research and capacity building (the 20 percent). Another is the concept for inter-Center NRM initiatives which link local NRM activities to build a global program which could generate IPGs.

While these studies identify differences between Challenge Programs and SWEPs, they also reveal similarities. The proposed “new SWEPs” and the Challenge Programs share a vision of inter-Center collaboration, strong external partnership and research for global public goods. Their differences; independent management, funding levels and being time-bound, seem to have to do more with operation than substance, and perhaps reflect the different nature of crop genetic improvement and NRM research.

8.1.7 The Future of Challenge Programs and SWEPs

The Panel believes that the Challenge Programs have created several new initiatives that have added value to CGIAR research through innovative internal and external partnerships. Further, these Programs have contributed to a more programmatic approach to CGIAR research. However, these successes are few, given the considerable effort put
into the Challenge Programs. The process has been slow in generating new projects and unsuccessful in attracting external leadership, with the exception of the SSA Challenge Program, which is still in a difficult inception phase. Challenge Programs have not provided the level of incremental funding anticipated, and there has been a continuing lack of alignment of Programs with any System strategy.

With such a mixed results, it is useful to remember that Challenge Programs were to be a “learning by doing” exercise, and to ask “what has worked and why?”. Greatest success has been associated with Center-led consortia: six out of the seven proposals that have reached full proposal stage have come from Centers, including those Programs considered most successful by lessons learned and External Review exercises. Externally-led proposals have, with one exception, not been successful in receiving funding. The three stages of the selection process and their selection criteria were intended in part to open the Challenge Programs to outside participation and leadership, but they appear to have had the opposite effect.

Looking back on this experience, a simpler approach to achieving the same results would be to invite new proposals from Center-led consortia. Center-led proposals have a proven capacity to satisfy challenging CGIAR selection criteria and to make innovative, effective external partnerships that add value. If proposals were solicited from Center-led consortia, the existing proposal system would not need to be changed, and could even be simplified to fewer stages.

Focusing Challenge Programs on Center-led consortia would also facilitate their better alignment with System strategy. Rather than selecting ideas for these strategically important Programs from a competitive international trawl of ideas, Challenge Programs would be directed at a collective, programmatic plan to address the CGIAR mission and its measurable strategic objectives. Replacing an opportunistic approach to Challenge Programs with a strategic one will reduce the risk of missing important opportunities, like climate change, which has taken seven years to emerge as a Program for funding through the Challenge Program process.

With a Center-led Challenge Program process, Programs could be managed as at present, through lead Centers with independent Program steering committees. Alternatively, in the new governance structure proposed in this review, Challenge Programs could be managed through the Consortium of Centers, placing administrative units centrally, and not in individual or “lead” Centers, avoiding possible conflicts of interest and ensuring adequate financial accountability for Programs.

The principle disadvantage of making Challenge Programs a Center-led process is the perceived loss of engagement with external partners, aimed at “opening up the CGIAR”. As discussed earlier, this issue is confounded by contrasting interpretations of partnership. In one sense, Challenge Programs do already “open up” the CGIAR, both through the
partnerships created between Centers and external institutions at the Program management level, and through the competitive funding schemes that operate within most Programs. What has not been successful with Challenge Programs is achieving leadership of projects by external organizations.

The alternative perception of Challenge Program partnership - where the CGIAR and other institutions share and develop initiatives collectively, has never really been a feature of Challenge Programs. Challenge Programs have been an internally-driven, CGIAR research project process. The opening up the CGIAR System to partnership at the institutional or System level – as distinct from the level - was indeed part of the CDMT vision for both Challenge Programs and Science Council (captured in the initiative on mobilizing science (SPMS), see Chapter 6). It also underpinned ExCo initiatives with CSOs and the private sector. None of these efforts at System-level partnership have been particularly effective, in part because there has been no clear entry point for partnership with the CGIAR System itself (see Chapter 11). Important as this System-level partnership is, it is not one which will be achieved effectively through individual Challenge Programs.

A second observation on Challenge Program success is that the most successful programs have been those directed at crop genetic improvement, namely HarvestPlus and Generation, in part because these fit well the strict criteria for such Programs. Projects addressing NRM and capacity building, such as Water and Food and SSA Challenge Programs have had more difficulty fitting this model. However, there has been great reluctance to discontinue these projects, because their concepts are highly valued. The Science Council’s recent evaluation of SWEPS also identifies new NRM and capacity building projects that may be good candidates for future “Challenge Program-like” programmatic funding initiatives. These three kinds of “new SWEPs” also involve inter-Center and external partnerships. While pains have been taken to distinguish Challenge Programs from SWEPs, there is clearly a continuum of mechanisms for supporting programmatic initiatives, each suited to its particular kind of research objective.

There appears to be an opportunity now to reframe Challenge Programs and SWEPs to address a common goal of focused, programmatic inter-Center initiatives which build innovative external partnerships to address complex issues of overwhelming global and/or regional significance. This objective may be achieved through a range of different instruments, e.g., the Challenge Programs and the three “new SWEPs” proposed by the Science Council. However, the experience of Challenge Programs cautions against over-planning the process. Rather than establishing a portfolio of discrete instruments, each with a large set of demanding and distinguishing criteria, it may be more effective to create a mechanism which adapts the instrument to be most appropriate to the objectives of the research. With a focus on research for results, and appropriate flexibility in design and management, special initiatives like Challenge Programs and SWEPs can capture the best ideas and become important strategic elements of programmatic CGIAR research.
8.1.8 Conclusions and Recommendations

Challenge Programs were aimed at evolving a programmatic approach across Centers, engaging new partners, generating new funding and addressing key challenges. They have made progress in some of these objectives. They have increased alignment between Centers and built new, valuable external partnerships around some key scientific challenges.

While Challenge Programs have generated some new funding, much of this is not incremental. This erodes Center confidence in Challenge Programs, and relevant donors need to acknowledge that their failure to make Challenge Programs incremental is a key cause of their low popularity with Centers. Further, this undermines the quality of proposals by compelling many Centers to participate in particular proposals, leading to “overcrowded” proposals that lack focus.

Challenge Programs have created substantial new research infrastructures with new transaction costs, and the Panel is concerned about their financial arrangement, management and associated risks. A recommendation that a financial audit be made of Challenge Programs is presented in Section 15.3.

Successful Challenge Programs have resulted from Center-led consortia. Few external institutions have succeeded at winning Programs, and Center consortia appear to make effective external partnerships. On the basis of this, the Panel recommends that the Challenge Program process be simplified to focus on Center-led consortia. This should not reduce the valuable involvement of external institutions in Challenge Program development and implementation if this is made a condition of their award and proposals are adequately peer-reviewed, and it will help make Challenge Programs an effective tool of System strategy.

The Panel also recommends that the CGIAR should integrate Challenge Programs and SWEPs into a new mechanism for inter-Center, programmatic research with partners which is more strategic, i.e., derived from System strategy and strategic objectives, and less opportunistic. Effort should be made to determine how the design and management of these new inter-Center initiatives could be based more on what is required to achieve result, and less on a portfolio of specific instruments. A future Consortium of Centers could provide a mechanism for their management which would avoid conflicts of interest and improve financial oversight.
Notes

1 Catley-Carson, M. et al. (2001). Designing and Managing Change in the CGIAR. Report to the CGIAR Mid-Term Meeting 2001 by the Change Design and Management Team.
32 Ibid.
CHAPTER 9
GENDER AND DIVERSITY IN THE CGIAR

9.1 Integration of Gender in the Centers’ Research

9.1.1 Gender and Development Effectiveness

The World Development Report 2008 re-affirmed that gender equality and investment in removing the barriers women face in agriculture are essential to achieving efficiency and productivity gains critical for poverty reduction.

The CGIAR System has one program response to gender in its research agenda—the Participatory Research and Gender Analysis Program (PRGA), launched in 1997 “to treat participatory research and gender analysis as strategic research methodologies for generating agricultural technologies for poor farmers.” (CIAT is the convening Center for the PRGA Program.) Gender as a consideration in research and outreach has also been addressed by individual scientists and Centers, some of which have appointed a gender coordinator or advisor to support the scientists’ work. Additionally, some donors require that gender be addressed in the projects they fund.

Section 9.2 covers the CGIAR Gender and Diversity Program, which addresses the Centers’ own gender and diversity profile in staffing, professional development, work on organizational culture, and some important parts of outreach.

9.1.2 Methodology

This Section draws from literature on gender and agriculture, including the 2006 report on ILRI’s institutional approaches and the 2007 PRGA Review, including the Science Council response. It also draws on the World Bank’s World Development Report 2008: Agriculture for Development, the Independent Review Panel’s survey of informed stakeholders, and discussions Panel members held with the Centers.

The Panel has benefited from a 2008 self-assessment led by IFPRI that extracted lessons from Centers’ initiatives to integrate gender considerations into their scientific research agendas and studies. The Panel was consulted on the questions for the IFPRI survey. The resulting report—Opportunities and Challenges to Address Gender Issues in Agricultural Development Organizations: Lessons from a Self-Assessment in the CGIAR—is currently in draft form.
9.1.3 Importance of Gender to Food Productivity and to Pro-poor Growth in Agriculture

When Ester Boserup, a pioneer in creating the field of women in development, published *Woman’s Role in Economic Development* in 1970, it was not an accident that she began by documenting the under-acknowledged and undervalued contribution of women to agriculture in developing countries.6

**Box 9.1.1: Gender-Based Inequality Diminishes the Effectiveness of Poverty Reduction Efforts**

...Comparative evidence from Kenya suggests that men’s gross value of output per hectare is eight percent higher than women’s. However, if women had the same human capital endowments and used the same amounts of factors and inputs as men, the value of their output would increase by some 22 percent. Their productivity is well below its potential. Capturing this potential productivity gain by improving the circumstances of women farmers would substantially increase food production in SSA, thereby significantly reducing the level of food insecurity in the region. If these results from Kenya were to hold in SSA as a whole, simply raising the productivity of women to the same level as men could increase total production by 10 to 15 percent (Saito et al. 1994). It has been demonstrated that where women are targeted for extension services they produce higher yields (Blumberg 1992).

Source: Paper prepared by C. Mark Blackden and R. Sudharshan Canagarajah, World Bank UNECA Expert Meeting on Pro-Poor Growth Kampala, Uganda, June 23-24, 20037

From the 1980s into the 1990s, when gender began to be recognized as a "key organizing principle," studies showed women played a critical role in food security for family and local use—especially when it came to staple crops. The income these women earned paid for child education, nutrition, and other household needs more than did men’s.9 But women producers were disadvantaged because of lesser access to assets and resources such as seeds, land, labor, extension or technical support, technology, and finance or credit, as well as by the demands of domestic duties. Child care, providing water and fuel wood, and processing and storing food all restricted women’s mobility. Studies in time use showed the work-day for women farmers was longer than men’s by several hours. Observations also showed that African women spent about three times more of their day on travel, and transported as much as four times more in volume, often on their heads.10 Some studies showed that farming women’s knowledge of crops and local conditions was overlooked, as was the role of women with small livestock herds and milk production in pastoralist communities. Other studies estimated that if women farmers had inputs equal to those of men, women could raise their productivity by as much as 20 percent.11

In the early 1980s, joint Harvard Business School and Harvard International Development Institute case studies documented the loss of women’s access to and control over resources because of well-intentioned and seemingly neutral development interventions.12 It became clear that no development intervention could claim to be neutral without systematic analysis of the impact on women’s social and economic roles. Donor agencies agreed. The
OECD-DAC’s first guidelines for bilateral agencies directed at women in development stated that the integration of women was a matter of development effectiveness and was therefore *a professional responsibility, not a matter of personal persuasion*. This shifted institutional approaches from an advocacy model (personal persuasion, supply driven) to an accountability model (institutional standards, demand driven), requiring action to prevent unintentional harm and to promote improved status for women and girls.

Equality based organizations were defined as those which measured impacts, not those that claimed to be neutral.

However, in the 1990s, reforms in agriculture related to economic liberalization and “structural adjustment” reverted to the gender-blind assumptions of earlier decades. Studies spoke of women farmers’ *“negative supply response to market liberalization,”*13 while cuts in government spending on health and education, as well as agricultural support services, fed economic stagnation. In addition, women were in some instances pressured to switch from growing food for the family to cultivating crops for sale, with consequent implications for nutrition and food security.

**Box 9.1.2: International Community Repeats A Call for Accountability**

A number of other changes will strengthen women’s contributions to agricultural production and sustainability. These include support for public services and investment in rural areas in order to improve women’s living and working conditions; giving priority to technological development policies targeting rural and farm women’s needs and recognizing their knowledge, skills and experience in the production of food and the conservation of biodiversity; and assessing the negative effects and risks of farming practices and technology, including pesticides on women’s health, and taking measures to reduce use and exposure. Finally, if we are to better recognize women as integral to sustainable development, it is critical to ensure gender balance in AKST (Agriculture Knowledge and Sustainable Development) decision making at all levels and provide mechanisms to hold AKST organizations accountable for progress in the above areas.

Source: *International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), Executive Summary of the Synthesis Report*

Today, agriculture in developing countries is *“vast, varied and changing,”*14 as are gender dimensions for agriculture. Two important factors in this evolution are global vertical integration involving agricultural produce, and innovation in biotechnology.

Shifts from subsistence crops to both cash crops and to non-traditional, higher-value crops, are reshaping the landscape for women who work the land, while new markets are appearing world wide for high value horticultural crops such as vegetables, flowers, and spices. These products are part of competitive global supply chains that are increasingly consolidated under a few transnational corporations. Women are the majority in this expanding commercial workforce—they constitute about 75 percent of the workers in the Kenyan cut-flower industry,15 for example. Meanwhile, familiar on-going patterns...
disadvantage women compared to men. For instance, men tend to predominate in “permanent” positions (e.g., two-thirds in Kenyan horticulture are men), in contrast to women, who work the “flexible” (i.e., seasonal or casual) jobs. These latter jobs feature work and income instability, lower pay and benefits, and fewer opportunities for training, employment upgrading, accessing new technologies, and organizing for better working conditions.\textsuperscript{16}

But opportunities for women are also being created with these shifts, with access to higher-value crop production and through increased demand for labor. Lessons of the past tell us, however, that assumptions about an evolving agricultural world for women living in a subsistence environment need to be tested.

Admittedly, there are strong limits on the availability of sex-disaggregated data related to agriculture in developing countries. Generalizations are awkward because of variation in gendered patterns according to locale. The World Bank’s 2008 World Development Report: Agriculture for Development underscored the important contribution of women to agriculture: “Women play a major, but largely unrecognized, role in agriculture in most countries of the world. Failure to recognize their roles is costly. It results in misguided policies and programs, forgone agricultural output and associated income flows, higher levels of poverty and food, and nutrient insecurity.”\textsuperscript{17} The WDR suggested that for agricultural productivity to grow, organizations “must recognize the often-dominant role of women as farmers, agro-processors, and traders in local markets.”\textsuperscript{18}

The WDR underscored the importance of agricultural development on women’s prosperity in developing countries: “Farming is a key pathway out of poverty for women because their mobility is constrained and thus migration or external labor markers are limited options.”\textsuperscript{19} The WDR urged the international community to focus on: (1) improving women’s productivity by supporting their move out of subsistence crops to higher value crops; and (2) introducing commodities that can benefit women.\textsuperscript{20}

Despite almost 40 years of solid evidence about the implication of gender, the fact that contemporary WDR findings merely mirror those of the 1970s and 1980s points to an ongoing failure by the international community to address the different needs of women and men in agriculture. This was confirmed by a recent independent evaluation of the FAO, which concluded that all FAO policy affirmations and goal statements on mainstreaming have had no influence on programming.

This is especially problematic because, as the WDR found, in agriculture-based countries—mostly in sub-Saharan Africa—agriculture employs about two-thirds of the labor force and generates almost one-third of Gross Domestic Product.\textsuperscript{21} The WDR emphasizes that the situation is not expected to change soon; nor is the still-increasing
Recognizing how intertwined gender inequalities are with slow progress in agricultural development, and given the current food crisis and the loss of potential productivity by women farmers, a close look at the CGIAR record on gender was called for to assess CGIAR’s effectiveness.

9.1.4 Gender and the CGIAR

The Importance of Gender to the CGIAR System and System Effectiveness: Results of Surveys

The CGIAR has extended and varied experience with integrating gender into its research programs. The Independent Review Panel’s survey of informed stakeholders posed questions and sought comments about that experience, in order to assess the CGIAR’s consideration of gender in Center leadership. Most CGIAR respondents indicated strong support for integrating gender into research (Table 9.1.5). Seventy-nine percent of respondents and 80 percent of Center governance and management responded that gender integration was important or very important.

The 2008 IFRPRI self-assessment survey of Center Deputy Directors General and some scientists showed the same results. Almost 75 percent of respondents judged integration of gender “as very relevant to the research and outreach work at their CGIAR Center.” There was more emphasis placed on the needs on women as farmers compared with the nutritional needs of women and girls. But, according to the self-assessment survey, “there was some work on nutritional needs as well, including on other ways of increasing crop micronutrients, whether through bio-fortification or promotion of nutrient rich crops, and on gender-related differences in health within forest communities.” Work on gender in biodiversity, aquaculture, technology development and dissemination, watershed management, and market-oriented livestock production was also identified by the IFPRI survey.

<table>
<thead>
<tr>
<th>Population</th>
<th>Number and % of Respondents in Category</th>
<th>% Important or Very Important</th>
<th>% Significant Value / Not “Important”</th>
<th>% No / Minor Importance</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>183 / 91.04%</td>
<td>79.23%</td>
<td>12.02%</td>
<td>8.75%</td>
<td>4.04</td>
</tr>
<tr>
<td>ExCo and Members (91)</td>
<td>79 / 86.81%</td>
<td>84.21%</td>
<td>10.53%</td>
<td>5.26%</td>
<td>4.08</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>81.13%</td>
<td>9.43%</td>
<td>9.44%</td>
<td>4.09</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>12 / 80.0%</td>
<td>66.67%</td>
<td>25.0%</td>
<td>8.33%</td>
<td>4.08</td>
</tr>
</tbody>
</table>
Despite recognizing the substantive importance of gender, the Panel Survey found that fewer than half of Center Management judged their collective efforts as “Effective” and only one-third of All Respondents judged the CGIAR record as “Effective” (see Table 9.1.4).

### Table 9.1.4: How Effective Have the Centers Been in Incorporating a Gender Perspective in Research and Development Activities

<table>
<thead>
<tr>
<th>Population</th>
<th>Number and % responding in category</th>
<th>% Effective or very effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>165 / 82.09%</td>
<td>34.55%</td>
<td>43.03%</td>
<td>22.42%</td>
<td>3.11</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>71 / 78.02%</td>
<td>41.18%</td>
<td>23.53%</td>
<td>35.29%</td>
<td>3.20</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>54 / 100%</td>
<td>46.16%</td>
<td>38.46%</td>
<td>15.38%</td>
<td>3.29</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>10 / 66.67%</td>
<td>0.0%</td>
<td>80.0%</td>
<td>20.0%</td>
<td>2.80</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>15 / 75.0%</td>
<td>53.33%</td>
<td>20.0%</td>
<td>26.67%</td>
<td>3.06</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>14 / 70.0%</td>
<td>7.14%</td>
<td>42.86%</td>
<td>50.0%</td>
<td>2.50</td>
</tr>
</tbody>
</table>

One could reasonably interpret the lower ratings on the effectiveness of the CGIAR and the Centers as an opportunity to launch a System-Wide initiative to improve the integration of gender into the research agenda.

Respondents were asked to comment on varied approaches to improving the track record of the CGIAR and the Centers. Table 9.1.5 records the results. Those responding to the suggestion that “No change is needed” were a minority in each group of respondents. Most would prefer to continue “supplying training and guidance materials or best practices.” This attitude, however, is disappointing: an abundance of training and best practices materials on integrating gender into agriculture, health, nutrition and other agricultural related development interventions exists, and there is no question that such support is necessary. However, since the 1970s it has been clear that accountability approaches based on the collection and analysis of gender-disaggregated data are essential to ensuring that such material is used to adjust science to the needs of poor women and children (as well as men). Unfortunately, acceptance of gender-conscious strategies is low where it counts the most: among Board Chairs and Center Executives. (Highlighted in Table 9.1.5).
Table 9.1.5: Improving CGIAR and Centers’ Approaches to Research and Related Activities Informed by Gender Perspective: Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respondents</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide training and guidance materials or best practices on gender and diversity in agriculture</td>
<td>1</td>
<td>59.2%</td>
<td>1</td>
<td>68.83%</td>
<td>2</td>
<td>50.0%</td>
</tr>
<tr>
<td>PRGA Program should deal with other diversity and equity issues in addition to gender</td>
<td>2</td>
<td>45.98%</td>
<td>4</td>
<td>42.86%</td>
<td>1</td>
<td>54.0%</td>
</tr>
<tr>
<td>Have written gender policy and strategy to cover CGIAR and Centers</td>
<td>3</td>
<td>43.1%</td>
<td>3</td>
<td>46.75%</td>
<td>4</td>
<td>30.0%</td>
</tr>
<tr>
<td>Collect more gender dis-aggregated data and performance indicators for PM System</td>
<td>4</td>
<td>43.1%</td>
<td>2</td>
<td>50.65%</td>
<td>5</td>
<td>20.0%</td>
</tr>
<tr>
<td>Establish specific accountabilities System-Wide to address rural women’s and girls’ needs</td>
<td>5</td>
<td>41.38%</td>
<td>5</td>
<td>42.86%</td>
<td>3</td>
<td>34.0%</td>
</tr>
<tr>
<td>No change needed</td>
<td>6</td>
<td>10.34%</td>
<td>6</td>
<td>9.09%</td>
<td>6</td>
<td>12.0%</td>
</tr>
</tbody>
</table>

Source: Independent Review Panel’s survey of informed stakeholders

The System-Wide Approach: The Participatory Research and Gender Assessment (PRGA) Program

How is the System doing now? The only System-Wide program meant to address gender in the research agenda is the “Participatory Research and Gender Assessment Program” (PRGA),24 launched in 1997. The “First External Review of the System-Wide PRGA” found the program had unsatisfactory performance on gender, and highlighted that:

- Gender analysis was not included in all participatory research work and the participatory plant breeding studies “while innovative in their own right did not include gender analysis.”25
- “PRGA research focused more on the development of conceptual models and tools and less on systematic testing and use of the models and tools.”26
- PRGA research seen as promising to address gender in countries experiencing a feminization of agriculture was not tested or implemented by the program.
- Gender mainstreaming work with the NARS, which ended in 2006, was promising yet was not sufficiently institutionalized in most of the participating NARS—except perhaps Kenya.
Box 9.1.6 shows the Science Council response to the findings on gender by the 2007 PRGA Evaluation Panel. The Science Council recommendation to either phase out the participatory research component of the PRGA or find other instruments to scale up gender has gone unheeded. The May 2008 CIAT job description for a new Coordinator of the CGIAR PRGA addresses gender only as a modifier of the participatory research. It defines the programmatic purpose as: “To assess and develop methodologies and organizational innovations for gender-sensitive participatory research, and operationalize their use in plant breeding, crop, and natural-resource management.” The job description only asks that the applicants show “knowledge of mainstreaming.” There was no demand for significant experience in gender analysis in agriculture or in successfully shaping institutional frameworks to develop accountability for positive gender impact.

**Box 9.1.6: Science Council Recommendation to the Alliance on Gender**

| Source: Science Council Transmittal Note attached to the PRGA Review 2007 |

In summary, the Science Council sees a real need for more focused research on Gender Analysis (GA) leading the mainstreaming GA into all CGIAR research. This is not being achieved in the current PRGA program (nor was it achieved when GA was part of the Gender and Diversity Program). The SC urges the Alliance to consider how this might be best achieved either in phasing out the PR component of the PRGA in order then to focus on the GA or in finding new instruments to build the critical mass among the Centers.27

One conclusion drawn from the PRGA analysis is that the goal of System-Wide gender mainstreaming through this program is unlikely to succeed. This is in part because the program remains focused on advancing participatory research rather than gender. Further, despite the Science Council recommendation, nothing appears to have been done to broaden the PRGA mandate to take on building the institutional incentives for System-Wide adoption. Finally, as several gender specialists argued, “using the PRGA program as a vehicle to mainstream gender also reinforces the assumption that gender research is qualitative, participatory and soft.” Indeed, it does suggest that if scientists do not adopt participatory techniques, gender considerations need not be considered.

**Box 9.1.7: PRGA Focus on Participatory Research**

| Source: May 2008 Job Posting in CIAT Website |

Throughout its existence, the PRGA Program has been guided by its programmatic goal "to improve the ability of the CGIAR System and other collaborating institutions to develop technology which alleviates poverty, improves food security, and protects the environment with greater equity" and its programmatic purpose "to assess and develop methodologies and organizational innovations for gender-sensitive participatory research, and operationalize their use in plant breeding, crop and natural-resource management."

Long-standing experience in successful gender programs shows that staff positions on gender must support institutional leadership to create a demand and manage incentives to
integrate gender issues through institutional planning, programming, and reporting instruments.

The model the PRGA and those Centers appointing gender advisors have adopted holds a staff function (as opposed to line management) responsible for convincing peers and superiors, through training and guidance materials, to redirect their efforts to include gender analysis in research and outreach. The implication of a supply-driven advocacy role is that attitudes need changing. The advisor is put in the unenviable position of having to sell personal value shifts rather than creating demand through corporate incentives and support for all researchers to adapt their analysis and outputs.

The advocacy approach puts the gender specialist in an impossible high transactions role that cannot do justice to the wide variety of instruments that require rethinking. Without formal institutional support and systemic change, the advisor often defaults to one-on-one persuasion and to opportunistic tactics to work with those who are inclined to consider gender implications in their research. The opportunity cost is sustainable change that comes from Center-supported strategies for greater outcomes for all populations being served across all instruments. The advocacy approach detracts from the position that addressing women’s contributions and needs is a professional responsibility.

In cases where the gender responsibility has been put into professional services or expert advisor departments, as CIDA did in 1986, the gender role tends to move from managing institutional results to advocacy on a project-by-project level, with an inevitable decline in effectiveness. CIDA returned the Gender Equality Division to its corporate role in Policy Branch in the early 1990s, and has since developed a Performance Assessment Framework for its results-based Gender Equality Policy. 28 "CIDA has gender ‘specialists,’ but their accountability is for the quality of their advice, while accountability for implementing and reporting on the agency’s GE Policy results in development programming lies clearly with line management." In the late 1990s the World Bank’s new Gender Director reported to the Vice President of the Poverty Reduction and Economics Management Network (PREM) at the World Bank, although the approach is still largely opportunistic.

In sum, the advocacy (advisor/coordinator) model is interpersonal and relies heavily on the personality traits and resilience of those assigned to the position. Addressing attitudinal barriers in informal systems and organizational culture is important but this is often addressed more effectively when done less personally by creating a professional demand for gender support through institutional management systems throughout the annual business cycle. Expanding or refocusing the PRGA program, as many respondents suggested, will not be enough to institutionalize gender in the work of the Centers.
The System-Wide Approach: Priorities and Instruments to Implement the Priorities are Silent on Gender

From a System perspective, it is significant that the CGIAR and the Centers have not addressed gender in institutional guidance and management instruments. Members accepted System Priorities which do not include gender as a priority or as a cross-cutting theme to be managed and consistently measured in priority areas. The key instruments for aligning work of the Centers with System Priorities are largely silent on gender. For example, the Panel’s analysis determined that gender was scantily covered in the EPMRs (Box 9.1.8). When EPMRs did cover gender, this coverage was not consistent. Another example: the 1997 ICRISAT EPMR covered gender initiatives, but the 2004 EPMR barely mentioned gender work and did not follow up on the detailed recommendations on gender made in the 1997 EPMR. Analysis of the Impact Studies also found little evidence of gender analysis, action or impact.

A cursory review of the EPMR Guidelines (issued by the Science Council) shows that these are silent on the need for EPMRs to assess gender specifically in their assessments of the Centers’ science. This means that any coverage found was at the discretion of the EPMR Panel.

Box 9.1.8: EPMRs and Gender Coverage

"Substantive consideration of gender in EPMRs is still the exception rather than the rule. Some EPMR Panels claim that good science is blind to gender. But if the ultimate objective of the CGIAR is an impact on food security, poverty reduction and sustainable natural resource management, attention to gender is unavoidable."

Reviewing EPMRs indicates that:

- Gender in programs is mentioned somewhat in EPMRs of: CIAT, CIMMYT, CIP and ICRISAT
- Gender in programs is mentioned very slightly in EPMRs of: ICARDA, ILRI, IPGRI, IWMI and WARDA
- Gender is not mentioned in programs in EPMRs of: CIFOR, ICLARM, ICRAF, IFPRI, IITA and IRRI

However, these statements are both a reflection of the EPMRs and the work of the Centers; i.e., it is quite possible that work on gender in Center programs was not mentioned in EPMRs because the EPMR Panels did not believe it was necessary.”

Source: Christopher Gibbs: EPMR Meta Analysis

Several comments in the Independent Review Panel’s survey of informed stakeholders called for engaging the Science Council more and for increasing monitoring on gender by aligning the instruments it has at its disposal—that is, Framework Plans (FPs), the Medium-Term Plans (MTPs), the Center-based External Program and Management Reviews (EPMRs), and the Performance Management System (PMS).
Role of the Centers in Gender Integration

The second approach used by the CGIAR System to integrate gender issues is found in the work of individual Centers. Only four Centers reported having gender strategies in the IFPRI self-assessment. Within those Centers, awareness about the existence of gender strategies, and the responsibility to implement them, varied. That CGIAR attention to gender is more gesture than substance is a view expressed in the Independent Review Panel’s survey of informed stakeholders, in the IFPRI system self-assessment, and in the ILRI Gender Audit and Action Plan. This view is also reflected in the findings of the recent evaluation of the FAO.

As Box 9.1.9 shows, there is readiness by some to incorporate responsibility for gender into the incentive and accountability system of the CGIAR. In the written comments there were calls to incorporate gender into planning and measurement.

**Box 9.1.9: Comments on Integrating Gender into the Work of the Centers**

| *Research in the centers should be informed by all dimensions of the populations that matter in terms of the research, that being—religious differences, racial, cultural, economic, and gender differences. With biases in the past existing, all of these differences should be brought to the forefront, as is the case in medical research today.* |
| *Incorporating gender and diversity into research planning is essential. This is a research function. It must be separated from the gender staffing of the present program. Some centers (e.g., ILRI, IRRI) have strong research programs in gender analysis. These nodes can be captured by the RESEARCH part of the system and strengthened.* |
| *Gender should be more visibly recognized in all priority-setting and research-planning and be a criterion in outcome and impact monitoring.* |
| *Evaluate Center programs by how well their technologies reach women and children.* |
| *Research projects should be required to indicate the gender relevance and particular efforts to be made in ensuring incorporation of gender issues.* |

Source: Independent Panel Review Survey

While the Panel was not resourced to diagnose the work of individual Centers on gender issues, it took note that IRRI, ILRI, and IFPRI are often cited for having done good work. The IFPRI senior management team has made known to staff that it is time to “shift the burden of proof” and assume that gender is important unless researchers want to argue otherwise. IFPRI requires that all project MTP statements include how gender will be covered. IFPRI senior management also appointed a Gender Task Force to work with all research programs to ensure attention to gender. According to interviews with staff, this has “gone a long way toward shifting the perceptions of gender research.”

HarvestPlus has worked hard to increase micronutrients in food to benefit women and girls. Center work on cassava has paid special attention to developing harvest and post-
harvest technology with an emphasis on reducing labor for women and limiting exposure to smoke in processing the tuber. Additionally, CIFOR and IFPRI encourage work on gender through the exchange of information and electronic mailing lists.

It is important to keep in mind that having no evidence of positive or negative gender impact does not equate with evidence of lack of impact. Neutral interventions can have positive or negative impacts; whether they help or harm women and girls can only be known if gender analysis is integrated into assessments at all stages of a program. There are clear examples of efforts made by Centers on gender. Yet this effort is not managed across the system as a priority, nor are successes or the lessons learned systematically collected. Sharing among the Centers is informal and dependent on personal networks of interested researchers. Further, seemingly neutral work done by the Centers is not analyzed systematically for unintended results.

Enabling Environment

The ILRI study and the IFPRI Self-Assessment used a model based on four key enabling factors for successful institutional integration of gender. These factors include:

- political will or leadership
- accountability
- technical capacity
- organizational culture

As the Panel has illustrated in Section 9.1.3, CGIAR leadership on gender at the Systems level—the Chairs, ExCo and the Secretariat—has been absent. The IFPRI self-assessment suggests that Center-strengthened leadership needs to set the direction of the Centers and execute accountability mechanisms for explicit gender strategies and defined outcome targets.

Working Group One on Vision and Mission of the Facilitated Change Process covered the importance of gender. High-level outcome goals and indicators under each of the three strategic objectives should set the stage to include gender in the overall strategy, which in turn would be reflected in the Medium-Term Plans, in System and Center performance management systems, and in the External Program and Management Reviews and Impact Studies. Since 43 percent of respondents to the Independent Review Panel’s survey of informed stakeholders called the inclusion of gender measures in the PMS important, there appears to be significant readiness for a more professional, evidence-based approach to gender integration in the science and in outreach.
Table 9.1.10: Reported Management Support for Gender Research

<table>
<thead>
<tr>
<th>Type of Management Support</th>
<th>Percent</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaks to the issue in internal and external forums</td>
<td>88.9%</td>
<td>24</td>
</tr>
<tr>
<td>Requires gender strategies in the Medium Term Plan</td>
<td>37.0%</td>
<td>10</td>
</tr>
<tr>
<td>Requires gender strategies in project approval documents</td>
<td>29.6%</td>
<td>8</td>
</tr>
<tr>
<td>Requires gender results in performance management.</td>
<td>29.6%</td>
<td>8</td>
</tr>
<tr>
<td>Inquires into lessons learned on gender</td>
<td>55.6%</td>
<td>15</td>
</tr>
<tr>
<td>Little attention to gender from senior management</td>
<td>11.1%</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: CGIAR IFPRI Self Assessment

9.1.5 Findings and Conclusions

The CGIAR System largely expresses that gender integration is important or very important to its research mandate. There is a genuine recognition that the CGIAR and the Centers have not been fully effective in integrating gender into research and outreach mandates. There is scant evidence that the contributions of women to agriculture, and of their special knowledge and needs, are addressed at a level that equals their importance to agriculture, as recognized by the WDR 2008 and by CGIAR and Center leadership. The CGIAR Centers have not adopted proven institutional practices to mainstream gender and to devise special measures to address specific needs of women and girls. There is a pattern of misplaced reliance by CGIAR leadership on staff functions that operate below managerial level. This takes responsibility away from operations management and professional staff. In sum, the Panel observes that there is:

- no System-Wide champion of gender issues
- negligible attention to gender issues in the CGIAR Science Priorities
- negligible attention to gender issues within the Medium-Term Plans
- negligible attention to gender issues within EPMRs (unless specifically requested by a panelist)
- no attention to Research and Development issues within the annual CGIAR Performance Indicators
- negligible attention to gender issues within Center strategies and work plans (with a few exceptions)
- lack of requirements for gender-disaggregated reporting for project management; absence of same for M&E systems
- and that neither PRGA nor Gender and Diversity nor any other CGIAR body is mandated to provide leadership in tracking progress toward institutional gender research and technology development objectives.

In other words: gender has not been institutionalized in the research and outreach work of the CGIAR. It is *ad hoc* and highly dependent on individuals. That said, there is also good
reason to be optimistic that CGIAR will embrace a more serious approach to gender. Feedback from respondents in the rated questions and comments indicate that champions do exist, good work has been done, and there is a readiness among a good number of individuals for adopting empirical and institutional approaches.

9.1.6 Recommendations

The 1998 System-Wide Review proposed that: “An International Network for the Technological Empowerment of Women in Agriculture be organized as CGIAR’s contribution to halting the feminization of rural poverty and enhancing the role of women in agricultural progress.” This global network, it suggested, would bring about symbiotic linkages with programs of multilateral, bilateral, national, and non-governmental agencies. The report suggested the network would form a common platform for action based on IRRI’s experience with the Women in Rice Network in Asia.

Had the CGIAR acted on the 1998 recommendation, not only would it have served poor women in developing countries, but the experience of tapping into and building networks could also have spun off System-Wide innovation in expanding and developing the CGIAR’s reach.

The Panel recognizes that managing gender well is a complex undertaking that cuts across diversity in all its forms. As implied in the gender frameworks used by IFPRI and ILRI, consistent leadership is required to ensure the integration of gender issues by visibly demonstrating support for gender as a matter of professional responsibility in reaching CGIAR strategic objectives. Support needs to include investing in technical capacity and providing financial support, using existing management and accountability systems, and creating an enthusiastic organizational culture to address the needs and the preferences of women and girls.

The Panel recommends that:

- A System-Wide gender strategy and results framework needs to be developed to achieve the new CGIAR Mission and Vision in a manner that meets the needs of women and girls as well as men and boys in agriculture- and health-related aspects of agriculture. Included in the gender strategy should be agreed targets and indicators for each of the three new CGIAR strategic objectives. Ideally, a gender strategy and a results framework would be developed by the governance structure of the CGIAR as an integrated part of the Strategy, which would be used by the new CGIAR governance and management structures. In the Panel’s suggested model this would be the new Consortium in conjunction with the CGIAR Fund.
The urgency of the food price crisis requires quick action, Transition to the new CGIAR will take time and focus. Given IFPRI experience with gender integration in research and human resource management, it is suggested that IFPRI collaborate with the Centers in developing the new gender strategy. IFPRI leadership would hand over the proposed strategy to the new decision-making body of the CGIAR for launch as a complement to and integration into the new CGIAR strategy and reform program.

- IFPRI could establish an intra-Center and stakeholder Results Task Force, led by a senior manager at IFPRI who can mobilize other center management, with a mandate to develop System-Wide gender indicators that track progress on new CGIAR strategic objectives at all levels: global, regional/country, and local. Outcomes-based indicators would be tracked across the system and in each Center and cross-cutting program. The Task Force would review guidelines for all management and accountability instruments of the system: the PMS, MTPs, EPMRs, Impact Assessments, System-Wide evaluations, and templates for Center work plans and annual reporting. The Task Force would develop a system accountability framework for Gender in R&D.

The Panel’s Functional Guidance to IFPRI in Developing the Strategy and Results Framework suggests that they should:

- Draw lessons from current efforts to address gender in the Centers and from an analysis of selected research programs without gender components for gender impact.
- Work with the FAO to update data on the role of women and men in agricultural production by region and recommend actions for research and technology development as well as for development programs to address women’s and girl’s roles in agriculture.
- Document the cost of the support and special programs needed to ensure the integration of gender in the research and outreach of the Centers and in partnerships initiatives
- Consider recommending a program for the CGIAR to work with international organizations to launch a major strategy to ensure CGIAR Center products and services reach female laborers, small scale women farmers and female entrepreneurs involved in agriculture production and marketing.

### 9.2 Gender and Diversity in the CGIAR Human Resource System

#### 9.2.1 A Gender and Diversity Program (G&D)

The CGIAR Centers have responded to the need to attract scientists who represent the perspectives and experiences of their clients. The Centers support the Gender and Diversity Program (G&D), which has endeavored to build a talent pool of women and developing country scientists. The program provides guidelines on best practice for
multicultural people management and tools for Center leadership to create and maintain an inclusive workplace appropriate to a high-performance global organization. This Section examines this approach relative to current best practice on workplace equity.

**Approaches to Workplace Equity**

The following details the evolution in understanding discrimination in the workplace. This evolution resulted from both legal action and social science research, twin pressures that developed simultaneously yet separately in the national institutions of Western countries and in the field of international development. As the understanding of different types of discrimination evolved, so too did the remedies. Since the 1960s, the definition of discrimination has evolved through three stages, outlined in Table 9.2.1.

**Table 9.2.1 Evolution in Definitions and Remedies to Employment Discrimination**

<table>
<thead>
<tr>
<th>Discrimination</th>
<th>Definition</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intent Discrimination</td>
<td>Discrimination as the deliberate act of biased or prejudiced persons. Education to change the hearts and minds of politicians, employers, policymakers, teachers, development officers, management, and staff.</td>
<td></td>
</tr>
<tr>
<td>Unequal Treatment</td>
<td>Routine treatment different for the old and young, males and females, minorities and non-minorities. It includes legally required or informally prescribed practices. Adoption of practices to treat all groups equally.</td>
<td></td>
</tr>
<tr>
<td>Systemic Discrimination</td>
<td>Practices having a negative or differential impact on women and other designated groups even though community-based norms or organization policy guiding those practices were established and implemented with no intent to harm and with no prejudice. On their face and in their intent, the practices appear fair and neutral. The disproportionate impact cannot be justified as predicting individual performance in the project or on the job. Systemic discrimination has also been called impact or institutional discrimination. The key point is that such discrimination is described in terms of systems and effects rather than intentional wrongs. It is the entrenchment of social, cultural and physical norms in processes and practices in organizations and institutions. Individuals cannot usually feel or see systemic discrimination. It is unintentional. The shift which occurred moved the understanding from solely attitudinal or intentional mechanisms to institutional mechanisms which result in disproportionate exclusion of women in comparison to men. Minorities groups compared to non minorities groups within a particular setting. This shift allows for operational indices, statistical indices of systemic discrimination. The remedy thus requires three steps, called “adverse impact analysis”: For women this would entail: 1. Measurement of the impact of an employment practice on women as compared to men or the participation rate of women is compared to the participation rate of men. 2. If women are disproportionately excluded, an examination of the practice is made to determine its validity, its necessity to attain the goals of the program or project. If the practice is not valid, it is eliminated. 3. If the practice is valid, an “alternative” is sought which would accomplish the goals yet have no or lesser adverse impact. Amending a practice that excludes women/developing country nationals may be sufficient to bring about equality of result. More</td>
<td></td>
</tr>
</tbody>
</table>
Systemic discrimination, as defined above, is addressed by measuring the impact of seemingly neutral systems in employment. Collecting the stock (current % female / % male by job category and salary band) and flow data (for example: % qualified female promoted as a % of qualified males promoted; % qualified regional staff trained / % qualified international staff trained) on designated groups. Analysis of the data assists management to pinpoint where barriers might exist in recruitment, compensation, training, promotion, and layoffs. This can been identified when varying rates of success are seen between the groups being compared. Numerous templates are available to measure the movement of staff through the organization to determine if some groups experience differential effects, and if so, why. Without going into details here, it should be noted that this approach is data-intensive and relies on information being made available on the representation of target group members in the recruitment pool in order to set goals for proportional representation in recruitment based on the available qualified individuals.

Many organizations have opted to simply set targets without doing the analytical work on availability profiles for recruitment, or on the movement of targeted groups once employed.

This has created two problems: First, when targets are disconnected from availability, whoever is chosen may not have all the qualifications necessary and thus be destined to fail. They are quickly resented as “tokens” by their peers, and failure will be expected, whether the candidate is qualified or not. For example, organizations often default to the “30 percent female” rule as a favorite target choice no matter whether women account for 40 percent or 10 percent of the graduates or labor market in the desired field. When this happens “quotas” replace targets based on availability of qualified recruits or staff. Second, without the analysis being done, real barriers in the institution’s employment systems are not identified or remedied, thus exclusion continues. Opportunities are lost when colleagues do not see revealed barriers that prevent colleagues from under-represented groups from performing at par. Collecting the stock and flow data is important. Knowing how to interpret the data is equally important. When this is done professionally, it helps all staff to see targets not as quotas, but rather as indicators of what the workforce would look like if there were no artificial barriers to employment.
Table 9.2.2 Evolution in Definitions of Discrimination Has Led to Changes in Institutional Responses to Discrimination

<table>
<thead>
<tr>
<th>1960s</th>
<th>1980s – 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Impact</td>
</tr>
<tr>
<td>Intentional</td>
<td>Individual</td>
</tr>
<tr>
<td>Systemic</td>
<td>Group</td>
</tr>
</tbody>
</table>

Source: Elizabeth McAllister

9.2.2 Findings on Gender and Diversity (G&D) in the CGIAR

Figure 9.2.1: Comparison and Importance of Gender and Diversity Issues

Recognizing that gender and diversity tracking has been the cornerstone of employment equity programs, the Panel explored whether or not the CGIAR System measured the effects of its own employment systems. The Panel asked for data on the representation of women and developing country nationals by job category and by compensation levels. The Panel was informed that this information is collected only every five years by the Gender and Diversity Program, and that it was a complex undertaking, as the data is not collected regularly by all Centers and formats differ across the Centers, making comparisons and trend analysis difficult.
The IRP Survey questions aimed to test respondent perceptions of the current approach, and their readiness to move to a more institutionalized approach to increasing workplace equity.

The first question considered perceptions of gender and diversity. Seventy-four percent of all respondents judged gender and diversity issues “important” or “very important” in relation to the effectiveness of the CGIAR and Centers, and most groups ranked these issues as among the most important in the System. The Board Chairs and the Directors General especially rate these highly. But responses were mixed about whether the CGIAR and Centers have been effective in achieving gender and diversity objectives. Only 45 percent of all respondents believe that the objectives have been achieved in an effective way. Polarization of opinion was evident (Table 9.2.1).

There was a 32-point gap between the low and high values (27 percent of Challenge Program respondents, compared to 59 percent of Board Chair/Center Executive respondents). Forty-three percent of the ExCo Members and 17 percent of the professional staff of the System responded that the CGIAR and Centers have been “effective in achieving gender and diversity objectives.”

When asked: “Should the CGIAR System implement gender and diversity principles more strongly,” 56 percent of all respondents agreed. The percentage of respondents who selected this option ranged from 46 per cent (Board Chairs/Center Executives) to 78 percent (professional staff). Sixty-three percent of the ExCo/Member population subgroup agreed.

On the important question of whether the System should collect System-Wide gender and diversity information in disaggregated form, only 53 percent all respondents agreed. Seventy percent of Challenge Program respondents and 76 percent of Science Council respondents agreed, while only 44 percent to 54 percent of those in the other groups agreed. Thirty-four percent of Board Chairs/Center Executives thought that no change in the current situation is needed; 27 percent of Science Council respondents agreed.

"Better analysis of current strengths and weaknesses and implement changes to meet established realistic goals."

Survey Response

The majority of comments made in relation to the survey question, “What should be done to improve the CGIAR and Centers’ approaches to achieving gender and diversity objectives?” fell into the following categories:

Evidence Based Approach to Centers HR Management: Numerous respondents called for a more empirical approach to, and more accountability for, gender and diversity in the
Centers’ human resources management. Evidence from interviews indicates a stronger empirical base is needed to demonstrate how different groups fare in hiring, promotion, training, evaluations, and layoffs. Additional analysis of the results indicates that the Gender and Diversity Program has done an excellent job with few resources in advocating and supporting diversity in the workplace; however, more sophisticated analysis is needed to convince the Centers to take accountability for managing equity issues in a systematic and professional manner, and to assist them in this endeavor.

Roles and Responsibilities: Fifteen percent of those interviewed indicated that it is unclear who in the CGIAR System is truly accountable for developing, implementing, and evaluating compliance and performance of the gender and diversity policies.

Need for Real Cultural Change: Several respondents observed that for effective gender and diversity objectives to be adopted, they must be incorporated into the organizational culture—i.e., accepted as a normal part of CGIAR / Center life. The need for cultural change was stated or implied in about 25 percent of comments.

In most Centers there is serious lack of commitment to G&D goals among the Management Teams, Center Directors and Principle staff. I am in favour of positive recruitment.

I would really like to see the System attract the best staff, appoint the best Boards, convene the best review panels et. Surely we are past judging people by their race or sex.

Survey Responses

Lack of Resources: A few respondents commented on the lack of financial and other resources for advancing the gender and diversity agenda, both inside the CGIAR and with respect to research and development activities.

In conclusion, the survey and the Panel’s exploration with individual Centers reveal that Centers are not using stock and flow data regularly to manage barrier-free movement of staff through hire, promotions, and staff development opportunities. Responsibility is not clear—enquiries at a System level and in more than one of the Centers found that interviewees “knew someone was the Center champion” but no one could remember who it was. As is often the case with advocacy approaches, turnover in senior staff means that by the time momentum and traction are achieved, new leadership takes over. In the absence of consistent institutional strategies and incentives for gender and diversity, “it takes time to build up awareness and support again, and again…” as one interviewee noted.

- Continue to emphasize its importance and put in place mechanisms to enable tracking of progress across the Centers.
- Better analysis of current strengths and weaknesses, and implement changes to meet established realistic goals.
- Institutional reviews should include gender and diversity reviews.
- It is the responsibility of Center Management.

Chapter 9 Gender and Diversity in the CGIAR
In a networked system, even more than in a traditional institutional setting, management responsibility for a barrier-free environment is key. The importance of Center management responsibility was raised by the 2003 Evaluation Panel on the Gender and Diversity Program and will be discussed below.

The introduction of an additional Center-based information management responsibility will have to be accompanied by strong guidance on using gender and diversity performance-based data, to manage and to report. This is important because an unsettling theme ran through a number of comments: that diversity and gender programs have threatened science quality. More than 30 percent of comments referred to a potential conflict between a commitment to fairness and gender representation on one hand, and the requirement that the most highly qualified and capable individuals be available to do the best scientific work on the other hand. Indeed, this could be a problem if targets are chosen without the benefit of appropriate diagnostics and target-setting methods, and if the institutional barriers have not been identified, thereby allowing misplaced blame for lack of advancement on the victim, rather than on the systems that perpetuate past discrimination. The question, then, is: "Is the system prepared to take on a gender and nationality conscious strategy and to demonstrate accountability necessary to demonstrate a barrier free environment that draws the best talent from all available resources?"

9.2.3 Beyond the Survey: Implementing Gender and Diversity Policy

The CGIAR Gender and Diversity Program is hosted by the World Agroforestry Center in Nairobi, reporting to the Director General there and to the CGIAR System Office Oversight Board. The program is effective in advocating for Centers efforts to improve the representation of women and Southern nationals in the professional profile of CGIAR-supported Centers. The Bill & Melinda Gates Foundation has recently recognized the program’s leadership with an initial grant to support a gender program in agriculture: the African Women In Agriculture Research and Development (AWARD) Fellowships. (The grant is valued at $13 million over the next four years and, if it is as successful as the three-year pilot, has a good chance of being extended).

A 1999-2003 External Review of the CGIAR Gender and Diversity Program, Gender and Diversity: Enriching Future Harvests, found that the Gender and Diversity Program had made rapid, excellent progress towards accomplishing its goals in the four years of its existence. It was judged to be one of the most innovative System-Wide activities within the CGIAR. This was a remarkable finding, which the 2003 External Review attributed to its leader, who worked with a small staff of one to three people and yet provided Centers with a variety of tools, including annual training events, gap analysis tools, annual monitoring tools, model policies, and practices posted to the Inclusive Workplace E-Resource Center, from which Centers make advances and adaptations. The current strategy of the program is also one of the best crafted strategies seen in the CGIAR System.
The AWARD program has set clear measurable outcome level results. The strategic thinking, the high quality of materials published by the program, and the innovations in training, as well as significant external support, are all evidence that the program continues to demonstrate excellence.

The 2003 External Review Panel on G&D concluded that:

“The G&D toolkit of services (research, policy initiatives, recruitment services, training, publications and the website), which have been adapted on demand to the needs of the centers, is used by all 16 CGIAR Centers, and actively used by some 12 Centers. The toolkit forms the basis of the intense communication and collaboration with the majority of centers.”

The 2003 External Review of the G&D also found that its strategy remained valid. The core of that strategy is to respond to Center requests, based on the autonomy and ownership of the Centers. The Centers determine their own specific objectives. The program leader plays a proactive role in this interaction, by offering advice and technical assistance, by visiting the Centers, and by inviting Centers to dialogue. While this approach was seen to enhance the sense of ownership by the Centers, as well as the programs or individuals who are involved, it does not provide network-wide incentives to identify and eliminate common barriers to equity.

The 2003 Review Panel opted to lean toward safeguarding the autonomy of the Centers. Instead of calling for more commitment to accomplishing G&D objectives by recommending increased levels of accountability (by Center management and Boards) in the field of gender and diversity, it suggested that greater accountability measures were optional—such as by reporting on Gender and Diversity efforts in a special Human Resources chapter of the annual report.

The Review Panel called for the Systems HR Advisory Service to develop Human Resources Guidelines comparable to Financial Guidelines. In those HR Guidelines G&D elements would be included. The CGIAR HR Advisory Service, however, has never found its feet. Both directors recruited to lead the SAS-HR resigned in less than one year respectively, and the position has since remained vacant for several months. In other words, the SAS-HR has never provided the CGIAR with adequate support for tackling larger HR management issues.

Following its External Review, G&D launched a new strategy putting strong focus on decentralized mechanisms of accountability. G&D reorganized its resources and services, giving top priority to helping Centers implement three types one-, three- and five-year goals: policy, practice, and staffing profile. Each Centers’ goals must be approved by its Board. Having Board-approved goals for gender and diversity is one of the CGIAR Performance Indicators—but it is one that does not communicate useful information on
performance or results. There are four other gender and diversity-related indicators which, taken together, could encourage quota-setting as opposed to ongoing identification and elimination of barriers, and the establishment of targets based on analysis of availability. It does not allow necessary System-Wide performance tracking. Gender and Diversity has worked to ensure goals were set for policy changes as well as for everyday practices. They sought to have a comprehensive approach aimed at cultural changes to mitigate poor targeting practices. But without annual commitments to report on progress in the stock and flow of women and diverse populations, there are no “teeth” to the approach.

Visits to the Centers indicate that the adoption of the new strategy has been uneven. Some Centers collect data and others do not. Some Directors General do support gender and diversity staffing. Overall, however, there has not been a sufficient System-Wide effort to take advantage of statistical methodologies proven to assist organizations in identifying unintentional institutional barriers to women and other designated groups. In fact, there is no HR Information System and thus no basic HR data beyond the Center level.

There is no common practice or even understanding of gender and diversity performance management, and this continues to be a problem for the CGIAR and the Centers. A 2003 baseline staff profile is being updated by the Gender and Diversity Program for the 2008 AGM, but it is behind schedule because of the difficulty Centers have in retrieving data sets. While admirable, this five-year, episodic monitoring constitutes an “enormous undertaking,” since most Centers do not conscientiously or consistently collect data to use, in order to reduce adverse impact in employment practices. It is also evident that the Gender and Diversity Program is being asked to take on System and Center leadership’s accountability by taking on responsibility for collecting and assessing data on progress. This data should appear in yearly Center and System annual reports; there also ought to be a system-wide human resource management system, used to ensure equity in hiring, training, compensation, and other rewards.

Early reports from the G&D-led staffing survey indicate that good progress was made between 2003 and 2008 for women’s representation and diversity both. The number of women Scientists doubled from 182 to 267 between 2003 and 2008, increasing their representation in the Scientist staff group from less than 20 percent to 26 percent. The representation of Group 2 nationals among Center Scientists also increased significantly, from 58 percent in 2003 to 66 percent in 2008. This progress in both gender and diversity among Scientists was achieved while the total number of scientists increased only 10 percent. The picture for Center Management is a more mixed one. The total number of Center Management positions decreased by seven percent, yet the percentage of women in management doubled between 2003 and 2008 (from nine percent to 18 percent -- still very low). Group 2 national representation in Center Management decreased from 46 percent to 35 percent. These figures will have more meaning when the full report is available in
February 2009, with more contextual data. Meanwhile, indications are - the G&D strategy is paying off.

Figure 9.2.2: Scientist Staff Group: Gender Balance by Grades

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall 2008</td>
<td>26</td>
<td>74</td>
</tr>
<tr>
<td>2003</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Principal Scientist 2008</td>
<td>11</td>
<td>89</td>
</tr>
<tr>
<td>2003</td>
<td>7</td>
<td>93</td>
</tr>
<tr>
<td>Senior Scientist 2008</td>
<td>19</td>
<td>81</td>
</tr>
<tr>
<td>2003</td>
<td>15</td>
<td>85</td>
</tr>
<tr>
<td>Scientist 2008</td>
<td>27</td>
<td>73</td>
</tr>
<tr>
<td>2003</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Associate Scientist 2008</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>2003</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>Post-Doctoral Fellow 2008</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>2003</td>
<td>22</td>
<td>78</td>
</tr>
</tbody>
</table>


9.2.4 Panel Findings and Conclusions

Given its successful track record running global training programs for women’s leadership, it may be a natural evolution for the Gender and Diversity Program to parlay the AWARD program into joint CGIAR-Donor global programs to build PhD-Level agriculture research scientists, economists, and sociologist who can support the missions of the CGIAR and of the NARIs.

But the Centers need to take a more sophisticated approach to regularly identifying and eliminating systemic barriers to women and to Group 2 nationals in all aspects of CGIAR sponsored Center employment—from entry, compensation, promotion, and development, to exit. This work needs to be harmonized to aid self-learning among the Centers, and for progress to be reported in the CGIAR Annual Report.

G&D has worked with Centers to build positive environments that can capitalize on a diverse resource base. It has worked with CGIAR staff, and now with African women scientists, to build competence and confidence and to advance in the CGIAR System. The challenge for the new CGIAR will be to sustain the innovative spirit of the Program while
building a better human resource function to guide HR work across the System. As one Center person responsible for administration noted, the Centers have no core responsibility function to help Centers from reinventing HR systems and practices.

9.2.5 Recommendations

The Panel recommends that:

An HR Function be established in the proposed Consortium of Centers (see Chapter 13) which is: properly resourced, including a team of experts, not just one individual, and is focused on internal CGIAR and Center HR matters, including but not restricted to: (a) System-Wide core HR principles and policies; (b) a System-Wide HR information System; and (c) recruitment services. It could be reinforced by gender and diversity human resources expertise to continue with production of Gender and Diversity model policies. (This would come only after the HR function had established itself.) The HR function would develop systems for regular HR data collection, analysis, and reporting through the CGIAR Annual reports—including on progress towards gender and diversity goals and other important HR indicators of a well-functioning organization.

- A Joint Donor and CGIAR G&D Program be considered as part of the new CGIAR Strategy and program development to expand the AWARD program to include diversity objectives (Group 2 nationals) and to expand to other continents. The goal would be to increase the number of PhDs from developing countries in agricultural science, economics and other social sector disciplines associated with agriculture including health. Centers would work with G&D to select and host donor and funders scholarship holders in order to provide research venues and supervision for PhD candidates in tropical and arid land agriculture and natural resource management. The G&D would organize leadership, management, and team-building courses to assist the candidates in launching successful careers. The Centers would assist G&D to work with donors to strategically match northern and southern universities and CGIAR centers. High priority would be accorded to the development of a training series specifically designed to build up skills for gender responsive research.

In this scenario there would be gradual handover of Gender and Diversity’s mainstream human resource work while strengthen its core work on capacity building with CGIAR staff and partner staff in joint learning environments. In particular, G&D is uniquely positioned to offer programs and services to: (a) support the talent pool, especially of women in science and management; and (b) help create and sustain inclusive workplace management systems. Again, these areas would not only include the CGIAR Centers but also extend to selected CGIAR partners, especially NARs.
The choice is between allowing AWARD to growing slowly which, experience has shown, is usually a good course to take – or to use the CGIAR system with G&D as the fulcrum to leverage sufficient resources and support to make a major impact on the shortage of scientists available to tackle the agriculture challenges and climate change challenges in developing countries.
Notes

1 The Gender and Diversity Program, it is interesting to note, has not worked with the Challenge Programs except for one at the beginning. This may account for the some of the spread between the CP and Board Chair/Center Executive respondents.

2 2008 CIAT Participatory Research and Gender Analysis website: http://www.ciat.cgiar.org/asia/prga.htm (CIAT: Columbia)


7 http://www.worldbank.org/afr/overview.htm


16 Ibid., pp. 5-7.


19 Ibid.

20 In this vein, Demonstrations for the Panel at International Institute for Tropical Agriculture’s (IITA) illustrated the systems work to increase the productivity of cassava including introducing new technology for its harvest and the use of its biomass for animal fodder while discovering higher value uses of cassava for flour, syrup and glue. The demonstration indicated how research can contribute to women’s productivity. Cassava is widely grown by women and is considered a food subsistence crop. The science and outreach by IITA and others is creating new markets and support for the crop in the Ghanaian and Nigerian economies. IITA has entered into a private sector partnership with EKSA, a new cassava producer and glucose factory with that has a strong
representation of women in the director and science quality control leadership. (Panel interview at the factory and with IITA)
21 Ibid., p. 4.
23 Op Cit IFPRI Draft paper, p.3.
26 Ibid, p.22..
29 ICRASAT was one of the first IARCs: to recognize the importance of gender in agricultural production and the use of its products and to attempt to incorporate a gender perspective. Strategies to raise gender awareness and incorporate a gender perspective in ICRISAT’s program used female illiteracy to calculate the equity index, a measure used to prioritize research themes in the 1997 MTP. It set up a multi-disciplinary Gender Analysis Committee; hired a gender economist; requiring a gender implications statement in all planning; organized Women Farmers’ Days in India and three locations in Africa; and, requesting a consultancy from the CGIAR Gender Program to assess projects for their gender implications and to discuss the future directions. There is indication that the key personnel left and we are left not knowing of the recommendations for the 1997 EPMR were followed or if the work done by ICRISAT.
32 The CGIAR has responded to this concern in their recommendations on merit versus diversity. See http://www.genderdiversity.cgiar.org/inclusiveworkplace/opportunity/recruitment/selectiondec.htm
34 See for example:
- diversity positive recruitment:
  http://www.genderdiversity.cgiar.org/inclusiveworkplace/opportunity/recruitment/intro.htm
- flexible workplace:
  http://www.genderdiversity.cgiar.org/inclusiveworkplace/opportunity/flexible/intro.htm
- accommodating spouses/partners:
  http://www.genderdiversity.cgiar.org/inclusiveworkplace/inclusion/spousepartners/intro.htm
- preventing harassment and discrimination:
  http://www.genderdiversity.cgiar.org/inclusiveworkplace/dignity/harassment/intro.htm
- managing HIV/Aids in the workplace:
35 Specifically, the AWARD program seeks to achieve a:
- 25 percent increase in African women with BSc degrees participating as members of research teams in at least 20 agricultural institutions in sub-Saharan Africa;
• 50 percent increase in African women with masters degrees managing research teams and producing improved farm technologies at these institutions;
• 50 percent increase in African women PhDs serving in influential leadership roles and as role models and mentors to younger women;
• Significant increase in the number of African girls and young women inspired to pursue careers in agricultural research and development; and
• Significant increase in the number of men and women aware of the importance of women’s voices and contributions to agriculture in Africa.

CHAPTER 10
INTELLECTUAL PROPERTY RIGHTS:
ISSUES FOR THE CGIAR

10.1 International IPR Regimes

There are more than a dozen international treaties and protocols that cover or deal with issues of intellectual property rights. These include the Convention for the Protection of Industrial Property Rights (the Paris Convention), Universal Copyright Convention (1952), the Patent Cooperation Treaty (1970), the Berne Convention for the Protection of Literary and Artistic Works Paris 1971, the World Intellectual Property Organization Copyright Treaty (WCT), the International Convention for the Protection of New Varieties of Plants (UPOV), the Convention on Biological Diversity (CBD), the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement of the World Trade Organization, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), United Nations Framework Convention on Climate Change (UNFCC), the United Nations Convention to Combat Drought and Desertification (UNCCD), the Biosafety Protocol of the CBD, and the Kyoto Protocol. These regimes govern the protection of intellectual property in such forms as inventions, knowledge, and genetic material.

Of these regimes, it is the CBD, TRIPS and ITPGRFA which are the most recent and comprehensive in terms of their coverage of intellectual property rights issues. These recent treaties and the UPOV Convention directly impinge on public agricultural research and the production of international public goods in general.

The UPOV Convention has been revised many times since 1961 and the most recent version has been in force since 1998. Until recently its membership was largely western European countries and OECD countries. There are now more than 60 parties (nation states) to this Convention. Its main objective is to protect plant breeders’ rights. Parties to the Convention are required to grant and protect rights of breeders. Article 15 of the Convention provides exceptions to the breeder’s right. Essentially, a breeder’s rights shall not extend to acts done for experimental purposes. This provision gives latitude or exemption to scientists or research to use varieties under protection by UPOV for scientific research purposes. Thus the UPOV Convention does not unduly undermine or restrict CGIAR Centers’ agricultural research work. However, Centers’ scientists should be aware of the Convention.

The CBD’s objectives are to promote the conservation of biological diversity, sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources. It regulates access to and sharing of genetic resources, transfer of technology, protection of indigenous knowledge, and the safe handling of biotechnology
and the distribution of its benefits. More than 150 nation-states have ratified the CBD and are enacting national laws and regulations for its implementation.

Article 15 of the CBD focuses on ‘access to genetic resources’ and reaffirms the principle state or national sovereignty over genetic resources. Authority to determine access to and sharing of genetic resources is vested with national governments. This article of the CBD displaced the principle and legislation that treated genetic resources as common heritage of humankind—that the resources would be freely accessed, collected and exchange around the world.

Issues of access to and exchange of genetic resources as well as sharing benefits arising from the use of the resources are intimately connected to agriculture and food security issues. Indeed genetic resources and genetic diversity are also of critical importance in agricultural research and production. Restrictions on access and exchange of the resources can undermine goals of increasing agricultural productivity and achieving food security. Thus Parties to the CBD have to ensure that their national measures (legislation and regulations) for implementing Article 15 of the CBD do not constrain efforts of agricultural research.

Some developing countries, such as the Philippines and Costa Rica, have tried creating national regimes for access and benefit-sharing but have found it to be an exceedingly complex exercise, requiring the collaboration of experts in science, law and business. Many developing countries lack the capacity to bring these experts together and thus not able to really implement Article 15 provisions of the CBD. Countries that have been able to create domestic regimes faced challenges in their implementation. One such challenge is where access to a genetic resource was granted but the resource was removed from the country’s jurisdiction.

Another key provision in the CBD that has implications for agricultural research is Article 8(j). This article, which obliges the Parties to the Convention, subject to their national legislation, to: “respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity, promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices, and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.”

This Article is based on the premise that traditional knowledge of indigenous peoples and local communities can be very valuable in helping to identify genetic resources of potential interest for agricultural research. Furthermore, indigenous peoples and local communities contribute to the enhancement or improvement of genetic resources. Contracting parties to the CBD are required to respect, preserve and promote traditional knowledge with the approval of indigenous peoples and/or local communities themselves. Their measures to
regulate access to and exchange of genetic resources must ensure that prospectors of genetic resources obtain prior informed consent of the people and the communities. The Philippines' regulations for access to genetic resources have provisions for this. Other provisions in the CBD that impinge on agricultural research and food issues include Article 12(c), which deals with research and training in the use of scientific advances in biological diversity research; Article 16 on access to and technology transfer, and Article 17, which deals with exchange of information.

The TRIPS agreement largely focuses on patentability of life-forms, including genetic resources. Article 27 of the TRIPS agreement defines patentable subject matter. It provides that patents shall be available for any inventions, whether products or processes, in all fields of technology. It extends patentability to plants, animals and microorganisms. Parties to the agreement are required to provide protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. The sui generis system is less rigid than the patent option. It is one that gives flexibility to WTO members to adapt intellectual property protection to suit their conditions. However, the TRIPS Agreement does not elaborate what constitutes an effective sui generis system. The definition is left to wide interpretation. The Agreement requires members (144 nation-states are members) of WTO to implement minimum standards of protection for all forms of intellectual property rights. It is enforceable and countries that do not oblige can be penalized with trade and economic sanctions.

Developing countries are grappling with the implementation of Article 27 of the TRIPS Agreement. Many may not have the capacity to enact and enforce related national laws. Those with institutional capacities are making efforts to design domestic measures for compliance with the Agreement. For example, India opted for a sui generis system for plant varieties and thus enacted ‘The Protection of Plant Varieties and Farmers’ Rights (PPVFR) Act in 2001. This legislation is unique in the sense that it also aims at protecting farmers’ rights. Breeders and seed companies are required to meet minimum conditions (e.g. sharing benefits with farmers) to have access to new varieties developed by farmers.

Some recent studies have argued that the TRIPS Agreement was developed to meet interests of developed countries’ multinational companies, particularly pharmaceutical and seed companies. “The interests of developing countries, and of food producers or consumers, do not appear to have figured prominently in the motivation, …, for adopting TRIPS”. On the whole, the Agreement:

(a) requires countries to apply patent protection to plant varieties and genetic resources or at least strong intellectual property protection to these resources
(b) ignores informal innovations of farmers and communities but recognizes agricultural innovations of breeders and private sector;
(c) encourages germplasm to be ‘privatized’ and thus may reduce the flexibility of public agricultural research institutions to access germplasm for international public goods production; and
(d) May cause costs of accessing germplasm to increase with patenting of genes and thus increase costs of public research.

The TRIPS Agreement undermines the principle of common heritage of humankind—that genetic material should be freely available for plant breeding and public research aimed at achieving food security. Its application raises questions about the security and availability of genetic material in international genebanks, including those of the CGIAR. In terms of access to germplasm and sharing of benefits as required by the CBD, a number of studies have concluded that the TRIPS Agreement is likely to restrict access to and exchange of genetic resources and thus undermines efforts at promoting implementation of Article 15 of the CBD. Rosendal (2003) argues that: “applying patents to genetic resources from the international genebanks is thus seen as representing a threat to the basic principle of free exchange of germplasm.”2

The ITPGRFA (2001) is the latest or most recent of the regimes covering intellectual property protection issues of relevance to agricultural research and food security. Negotiated over a period of more than 10 years through the FAO, the Treaty aims at ensuring that plant genetic resources are available for public breeding and agricultural research for food. It explicitly prohibits patenting of germplasm or genetic material that is in the public domain and particularly that material in multilateral system of genebanks, including those of the CGIAR. The Treaty converges or is in harmony with the CBD in terms of its objectives. These are: (a) the conservation and sustainable use of genetic resources for food and agriculture; and (b) to ensure the fair and equitable sharing of the benefits out of their use for sustainable agriculture and food security.

Article 9 of the Treaty is about the protection of farmers’ rights. Article 9.1 provides that: “Contracting Parties recognize the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centers of origin and crop diversity, have made and will continue to make for the …development of plant genetic resources which constitute the basis of food and agriculture production through the world.”

The ITPGRFA establishes a Multilateral System of Access and benefit sharing that covers the 35 food crop species and 29 forage species listed in Annex I to the Treaty. Access to genetic resources and sharing of benefits arising from their use is founded on the principle of state sovereignty over genetic resources (Article 10 of the Treaty). This is same as for the CBD.

Articles 11 and 15 of the ITPGRFA enjoin the CGIAR centers, i.e. creates specific responsibilities for the Centers. Article 11.5 provides that: “the Multilateral Systems shall also include the plant genetic resources for food and agriculture listed in Annex 1 and held in the ex situ
collections of the International Agricultural Research Centers of the Consultative Group on International Agricultural Research (CGIAR)…”

Article 15.1 reads: “The Contracting Parties recognize the importance to this Treaty of the ex situ collections of plant genetic resources for food and agriculture held in trust by the International Agricultural Research Centers (IARCs) of the Consultative Group on International Agricultural Research (CGIAR). The Contracting Parties call upon the IARCs to sign agreements with the Governing Body with regard to such ex situ collections, in accordance with the following terms and conditions:

(a) Plant genetic resources for food and agriculture listed in Annex I of this Treaty and held by the IARCs shall be made available in accordance with the provisions set out in Part IV of this Treaty.

(b) Plant genetic resources for food and agriculture other than those listed in Annex I of this Treaty and collected before its entry into force that are held by IARCs shall be made available in accordance with the provisions of the MTA currently in use pursuant to agreements between the IARCs and the FAO. This MTA shall be amended by the Governing Body no later than its second regular session, in consultation with the IARCs, in accordance with the relevant provisions of this Treaty, especially Articles 12 and 13, and under the following conditions:

(i) The IARCs shall periodically inform the Governing Body about the MTAs entered into, according to a schedule to be established by the Governing Body;

(ii) The Contracting Parties in whose territory the plant genetic resources for food and agriculture were collected from in situ conditions shall be provided with samples of such plant genetic resources for food and agriculture on demand, without any MTA;

(iii) Benefits arising under the above MTA that accrue to the mechanism mentioned in Article 19.3f shall be applied, in particular, to the conservation and sustainable use of the plant genetic resources for food and agriculture in question, particularly in national and regional programs in developing countries and countries with economies in transition, especially in centers of diversity and the least developed countries; and

(iv) The IARCs shall take appropriate measures, in accordance with their capacity, to maintain effective compliance with the conditions of the MTAs, and shall promptly inform the Governing Body of cases of non-compliance.

(c) IARCs recognize the authority of the Governing Body to provide policy guidance relating to ex situ collections held by them and subject to the provisions of this Treaty.
(d) *The scientific and technical facilities in which such ex situ collections are conserved shall remain under the authority of the IARCs, which undertake to manage and administer these ex situ collections in accordance with internationally accepted standards, in particular the Genebank Standards as endorsed by the FAO Commission on Genetic Resources for Food and Agriculture....*

The ITPGRFA also sets up a standard Material Transfer Agreement for access to genetic resources and benefit sharing under the Multilateral System of Access. This is aimed at reducing transaction costs for bilateral negotiations between providers and users of genetic resources. This is unlike the CBD that encourages many bilateral negotiations for different species or forms of genetic resources. Instead, the ITPGRFA sets the rules for access to and benefit sharing from these specific crops and forages listed in Annex 1. However, there are a number of genetic resources that are relevant to food and agriculture that are not covered by the ITPGRFA. This includes plant genetic resources not listed in Annex I to the Treaty as well as animal genetic resources and aquatic genetic resources.

The ITPGRFA was entered into force on 29 June 2004. There are 119 Parties to the Treaty. They include many of the countries in which CGIAR Centers are hosted and/or have programs. These include Colombia, Cameroon, Ethiopia, Benin, India, Italy, Kenya, the Philippines, and the United States of America. As these and other State Parties to the Treaty start domesticating it, Centers will be required to comply with provisions of the Treaty.

**Implications for the CGIAR and its Centers**

The three regimes—CBD, TRIPS and ITPGRFA—discussed impinge on the work of CGIAR Centers in varied ways, depending mainly on national interpretation of provisions of the regimes and kinds of domestic laws for implementation of the agreement. On the whole, agreements govern the production, use and control of intellectual property and genetic resources. They have created new rules that cannot be ignored by the Centers in their operations. Centers’ host countries have also laid out national legislation and regulations for intellectual property protection, access to genetic resources, respect for and protection of traditional and indigenous knowledge, and a wide range of other aspects of the governance of research and technological innovation. Centers have legal obligation to follow the national procedures, regulations and laws.

The CGIAR and its Centers’ capacity to handle issues of intellectual property and governance of genetic resources affects the status of the collections in gene banks, exchange of germplasm, ability of the Centers to collaborate with NARS and farmers, and influence the kinds of partnerships they can establish with private sector and ARIs. The CGIAR cannot ignore or casually handle issues of intellectual property protection. They
need informed strategies to oblige with the CBD, TRIPS, IPGRFA and related national laws. Some of the key issues that the CGIAR and Centers need to consider are:

(a) Transaction costs of accessing genetic material from farmers and communities—the costs are likely to increase as developing countries enact legislation and regulations to implement Articles 8j and 15 of the CBD. Centers will require legal expertise and guidelines to be able to negotiate with communities and farmers for access to locally improved or enhanced germplasm. This also relates to Centers’ protecting and respecting the rights of traditional and indigenous peoples. In some cases some Centers work with communities and appropriate and use these peoples’ knowledge and information. They are required now to abide by Article 8j of the CBD. The extent to which the CGIAR and Centers in particular oblige and implement provisions of the CBD will determine whether and how they forge partnerships with CSOs.

(b) The germplasm collections held by the Centers are now regulated by the ITPGRFA and the CBD. Centers cannot privatized these and/or make them freely available to private sector and/or any other institutions that will privatize them. This consideration will influence how Centers and the CGIAR interact with private sector. Centers’ partnerships with private sector will need to be managed such that provisions of the treaties are not ignored or violated.

(c) The three treaties or regimes are complex and under continuous negotiations through Conferences of Parties of the CBD and ITPGRFA and WTO bodies. Provisions of these treaties are complex and some cases lacking clarity in interpretation. This raises uncertainty in terms of implementation or enforcement at national and institutional (e.g. CGIAR) levels.

The CGIAR and the centers’ work also relates to such other forms of intellectual property rights as copyright, trade marks, and trade secrets. The centers’ work is largely dependent on access to and use of software and publications. Centers also generate intellectual property and thus desire that their property be appropriately protected. For example, ILRI has a patent filled in the USA (US Patent no 5,273,744) on a vaccine for the protection of animals against theileria infection . CIAT has some plant variety certificates that have been filed in its name by Papalotla the US, South Africa, Nicaragua and Australia. All of the countries where Centers publish are members of the Berne Convention, so copyright is important part of Centers’ intellectual property.

The CGIAR and Centers have handled issues of intellectual property protection and governance of genetic resources—both at System and Center levels. At the System level, the Genetic Resources Policy Committee (GRPC) and the Central Advisory Service for Intellectual Property (CAS-IP) established in 1994 and 1999 respectively are the main
in institutional arrangements for addressing intellectual property and genetic resources policy and legal issues.

The GRPC’s main role is to advise the CGIAR on policy and legal issues pertaining to genetic resources. It is expected to assist the Chairperson of the CGIAR to provide overall policy guidance and leadership on how the CGIAR as a whole handles issues of genetic resources. In 2002 there was an external review of the GPRC. The review concluded that the Committee had fulfilled its mandate in “a very satisfactory manner” and that “there is need to retain such an independent mechanism within the CGIAR.” The GRPC is considered by most Centers as an authoritative source of policy documents on genetic resources issues. It is credited with enhancing Centers’ awareness of the various policy issues. GRPC was instrumental in guiding CGIAR’s participation in the negotiation of the ITPGFA. According to one interviewee, “if such a committee had not been established in the 1990s, the CGIAR would now be in disorder in so far as handling of complex legal and policy issues on genetic material.”

The CAS-IP largely focused on supporting the CGIAR to effectively manage intellectual property protection. It provides Centers with advice on such issues of developing material transfer agreements, stewardship of intellectual property and technology transfer, and managing proprietary technologies.

At the Center level, there are a wide range of institutional arrangements and procedures that Centers are individually experimenting with to handle issues of intellectual property protection and genetic resources policy. All Centers have Intellectual Property Policy Statements. Six Centers have established in-house units or offices dedicated to intellectual property management. These are ICRISAT, ILRI, IRRI, CIAT, Bioversity International and CIMMYT. All Centers have focal points and IP Committee. However, Centers have different capacities. Some Centers are more advanced with relatively developed regimes, high levels of awareness, and staff dealing with intellectual property issues. There is a general view among most of the interviewees that Centers need to do more to effectively deal with issues of intellectual property protection at the Center level. Most of the Centers do not have in-house staff responsible for IP issues and tend to deal with IP issues on an ad hoc basis, often reacting to crisis. A study conducted by CAS-IP in June 2004 concluded that “IP Management practice is uneven among Centers. A few Centers have been able to establish stable IP Management Units; a few more are in the process of establishing units, while many Centers do their IP Management in an ad hoc manner backed by IP Committees that meet once a year or less.”

The level of awareness of intellectual property issues has increased among Center scientists. Scientists are gaining an understanding of why intellectual property management is crucial to their operations. However, understanding of international and national laws is low among Centers’ scientists. A 2006 Science Council report noted that: “Much effort has been made by the System-wide Genetic Resources Program (SGRP), CAS-IP and
others to make sure that Center staff have a high level of understanding regarding the ITPGRFA….So, while it is not surprising that Center staff feel that their level of awareness of TRIPs or IP/IPR-related law is low, it is frustrating that the CBD and the International Treaty are not well-known. In addition, when this lack of awareness of these treaties is coupled with the fact that much of the 3rd party materials that the Centers use is information and knowledge associated with genetic resources or the use of genetic resources, we can see that more effort needs to be put into increasing awareness and understanding of these international agreements.”

Most of the Centers do not have annual budgets dedicated to intellectual property management, even though some have units and committees. According the Science Council study, “IP focal points have had to use funding from other projects to support attendance at the IP Strategy meetings for example.”

**Emerging Issues, Functional Guidance and Recommendations**

The CGIAR is working to improve its management of intellectual property protection and related issues of genetic resources, but it is insufficient. Centers and the CGIAR System are becoming more aware of the importance of intellectual property management, and CAS-IP is supporting Centers in their efforts. The GRPC has been instrumental in helping the Centers and the CGIAR to better understand genetic resources policy and legal issues. It played a major role in guiding the CGIAR to participate in the formation of the ITPGRFA and some of the CBD negotiations.

The GRPC, the CAS-IP and the individual Centers will need to do more to comply with provisions of the treaties. Some actions to be considered are:

- The CGIAR needs to commission or undertake a comprehensive study of transaction costs arising from the obligations created by the three regimes (Article 27 of TRIPS and Articles 8 and 15 of the CBD).
- The CGIAR and Centers need to review and learn more about national laws and regulations to implement the treaties and agreements. They need to monitor national process for access to genetic resources, sharing of benefits arising from access and use of the resources, creation of sui generis systems, and other developments in national intellectual property management. Centers need to build capacity to manage third-party intellectual property and should have a better understanding of liabilities associated with infringement or noncompliance.
- The CGIAR and the Centers, through CAS-IP and the GPRC, and through participation of individual Centers’ representatives should participate more in Conference of Parties to the CBD, particularly in the ongoing negotiations to develop guidelines on access to genetic resources and sharing of benefits from the use of these resources.
- The CGIAR and Centers, though having no status in the World Trade Organization (WTO), should establish a mechanism of monitoring development in the WTO,
particularly future negotiations on Article 27 of TRIPS. The CGIAR needs capacity to procure or generate evidence-based options on how best to address issues emerging with the implementation of the TRIPS.

- Centers’ scientists, leaders and managers must increase their awareness of the obligations raised by the regimes, through workshops and guidance from the GRPC and CAS-IP. Center leadership should be aware of the obligations and ensure that Centers are responsive and not reactionary to developments in intellectual property protection pertaining to genetic resources and agricultural research.

Recommendations

The Panel recommends a high-level dialogue (such as the Keystone Dialogue and Crucible Group processes) with Chatham House rules among representatives of CSOs, private sector, chairs of Centers’ boards and independent experts on IPR. A multi-stakeholder dialogue can be used to achieve greater clarity of the nexus between Intellectual Property Rights and public agricultural research.

Most critically, the CGIAR must resolve issues related to its policy of making research results publicly available. The interests of the CGIAR and developing countries must be respected, along with the interests of the private sector. Resolving these issues has been pending in the CGIAR for over a decade. The Panel recommends this issue now be accorded urgent and decisive attention with regard to:

- Rights and freedoms of the CGIAR centers to operate in the use, application, and possibly commercialization (probably through partners) of intellectual property and resulting products in developing countries;
- Rights for industry to use and exclusively commercialize intellectual property and resulting products in developed countries, probably with a royalty stream to the CGIAR and developing countries; and
- Market/crop segmentation, which could be useful for identifying one or another party’s rights in developing countries where public-sector companies also express interest in certain markets.

CGIAR Centers should develop a common strategy to protect their internally generated intellectual property and know-how by filing their own patent applications. This would allow them to establish a patent portfolio that could then be used as an asset in negotiating access to IPR owned by private-sector companies. Even though it would take years for a reasonable positioning to be achieved, it is an option worth looking into and assessing in terms of opportunities and (cost-related) risks. Of course, it would then be up to the CG to give royalty-free licenses to their institutions, their addressees, and developing countries.
Notes


CHAPTER 11
PARTNERSHIPS

11.1 Why Partnerships Matter for the CGIAR

There are many reasons the CGIAR invests in both intra- and external consultative group partnerships.

First: There is a growing appreciation within the CGIAR that on its own, the “system” and its individual Centers cannot effectively and efficiently produce and deliver international public goods in agriculture. They cannot individually conduct scientific research, develop and diffuse new agricultural technologies to poor farmers in developing countries, build capacity for the uptake of technologies, influence related public policies, fund raise and participate in international negotiations representing CGIAR as a System. For all of this to happen, the CGIAR needs to be part of an integrated and well-functioning international public goods delivery system. While the Centers can, and frequently do, provide the “core component” of an international agricultural research public goods delivery system, partners in the private, public, civil society and international sectors are necessary to collaborate in the provision of the “complementary component” of the international public goods delivery systems that leads to development impact.

Second: Agricultural research itself has become more complex because of scientific and technological advances, social and economic developments, and environmental changes, among other factors. To address this, traditional disciplinary approaches to agricultural research are giving way to multidisciplinary and trans-disciplinary approaches. No single Center possesses all the expertise and infrastructure that this requires. Where appropriate, therefore, Centers must collaborate among themselves and with other international, public and private entities to establish multidisciplinary teams. For example, through partnerships with research-oriented private companies, with NARS and with advanced research institutions in developed countries Centers can gain access to world-class laboratories and expertise—partnerships that can also facilitate technological innovation by enabling Centers and companies to move research from proof of concept to product development.

Third: Considerably higher costs are associated with new lines of research. The CGIAR and its Centers need to forge partnerships in order to share resources such as laboratory equipment, ICT infrastructure, administrative and finance capacities, and technical expertise. Centers can exploit economies of scale if they share resources among themselves and with external institutions through structured partnerships. In areas such as bioinformatics, some Centers are unlikely to possess adequate resources to invest in state-of-the art equipment and laboratories. In addition, it is neither necessary nor appropriate...
for each Center to procure, own, and maintain its own bioinformatics infrastructure and expertise.

Fourth: The CGIAR can forge partnerships with the private sector and advanced research institutes (ARIs) to access proprietary scientific information and technologies. For example, in the area of biotechnology and genomics, the private sector can be a major source of new products and processes that are under patent protection. Centers can enter into licensing agreements with private companies to access these proprietary technologies.

Fifth: CGIAR partnerships with CSOs (Civil Society Organizations) in general and NGOs (Non-governmental Organizations) in particular can be beneficial by enabling Centers to reach out to local social contexts. CSOs can link Centers to communities, farmers, and environments for which they are mandated to develop agricultural technologies and farming practices. CSOs can also be instrumental in supporting the policy research and natural resource management work of Centers through advocacy and outreach to governments and intergovernmental policy processes. Centers can also benefit from partnerships with research-oriented or operational NGOs. A growing number of NGOs focus on sustainable farming systems and aim to improve farming practices in rural poor areas. These can add value to Centers’ efforts at testing new concepts and practices.

Finally: Partnerships can increase financing for international agricultural research. Increasingly, donors encourage—and sometime require—that research be structured on the basis of partnerships. Some donors tend to provide grants or funds to NARS to forge partnerships with Centers, or funding goes to Centers on the condition that they work with NARS (National Agriculture Research Systems).

On the whole, there are a range of benefits that the CGIAR can reap from partnerships within the CGIAR and with external actors such as CSOs, NARS, ARIs (Advanced Research Institutes), and the private sector. Partnerships, however, have become a mantra in the discourse of international development, with the result that they are often put into place more as ends in themselves rather than as instruments to achieve greater efficiency and effectiveness. Partnerships can serve to increase costs and to require exceedingly high transaction costs. The CGIAR needs always to ensure that its partnerships are purposive, strategic and that they generate added value. At present, there is no overall CGIAR strategic approach to building and sustaining partnerships, both intra-CGIAR and with external partners. Different Centers have entered into various forms of collaborations or relationships for different reasons.

**11.2 Definitions and Conceptual Issues**

The need for CGIAR partnerships is clear. The word partnership has gained currency in the lexicon of the CGIAR but, as in many other international institutions, its definition and the requirements that need to be met if partnerships are to be effective remain unclear.
Different definitions of partnership are found in different Centers; even within individual Centers, there seems to be no shared understanding of the elements required for successful partnerships (some features of successful partnerships are summarized in Box 11.2.1). This is evident from a review of several partnerships strategies and MTPs (Medium Term Plans) of Centers.

**Box 11.2.1: Features of Successful Partnerships**

Chataway and Smith (2007) identify the following features of successful partnerships:

**(a) Articulation**—Ability of partners to define their roles, how they relate with each other and set clear goals and responsibilities. Whether partners set the vision and goals of the relationship together from the beginning determines the success of partnerships.

**(b) Resourcing**—successful partnerships tend to be resourced. Funds, expertise and other resources are made available for or dedicated to the building of the partnership itself.

**(c) Prior history and pre-existing trust**—partnerships that succeed tend to be those where partners have prior knowledge of and/or information on each other, have history of working together and established some common ways of doing things together. Partnerships work better and deliver results over long periods of time.

Earlier work by Spink and Merrill-Sands (1999) articulates additional elements of partnership:

**(d) Compelling vision**—partnerships need leaders and members who develop a compelling vision, a strong sense of purpose, and trust and commitment of members or partners in the relationship.

**(e) Strong and shared leadership**—successful partnerships are often developed through skilled facilitation by leaders. At the beginning, partnerships are dependent on leadership to facilitate the establishment of common goals, values and frameworks for engagement.

**(f) Shared problem definition and approach**—for a partnership to be successful, partners in the relationship should be involved in the definition of the problem to be solved from the beginning as well as in the design of programs for problem solving. Partners need to share or have a common understanding of the problem to be solved and agree on common approaches to solving.

**(g) Sharing power or power equity**—each partner in the relationship should have space, ability and authority to influence decisions. No one partner should intimidate the other or others in the relationship.

**(h) Recognize interdependency**—partners need to be aware of how interdependent they are and should be committed to bring their differentiated capabilities to create new value that each cannot individually or independently generate;

**(i) Mutual accountability**—successful partnerships occur when all members/partners fulfill their obligations and account for their actions based on prior agreed upon norms and rules.

Source: Chataway, J. and J. Smith, 2007. Spink, Linda and Deborah Merrill-Sands, 1999, Successful Collaborative Partnerships: Key Elements and a Self-Assessment Inventory

With an understanding of what comprises a partnership (Box 11.2.1), one can also classify partnerships according to the nature and scope of the relationship and the function of the collaboration (Box 11.2.2). Examining partnerships in this way is more than an academic exercise. In order to ensure the relevance, effectiveness, and efficiency of its partnerships, an institution must fully understand their characteristics.
Box 11.2.2: A Typology of Partnerships

Bezanson et al (2004) have defined partnerships as relationships that “entail ‘distributed power’ that depend on consensus.” They propose the following typology of partnerships:

(a) **Consultative** partnerships—institutions getting into relationships for purposes of sharing or exchanging information;
(b) **Coordinative** partnerships—relationships that are established by and/or among institutions or partner entities to avoid duplication in order to increase efficiency and effectiveness;
(c) **Complementary** partnerships—relationships in which or through which parties with separate initiatives agree to support each other to achieve their individual goals guided by a common framework;
(d) **Collaborative** partnerships—institutions sharing a common vision agree to work together through common programs; and
(e) **Critical** partnerships—these are relationships in which partners consider each other as indispensable in achieving specific goals based on shared visions.

11.3 Past Evaluations and Studies

Recent System-level evaluations (the Third System Review and OED’s Meta-Evaluation) and reform efforts (the 2001 Change Design and Management process and the 2005 Sub-Saharan Africa Task Forces) pointed to a range of weaknesses in CGIAR partnerships, including poorly-developed linkages with NGOs and the private sector, insufficient attention to capacity-building with NARS and weak or absent strategy.

The CGIAR’s own 2006 stakeholder survey reported some important findings on CGIAR partnerships. Twenty-three percent of stakeholders identified coordination of activities across Centers and external organizations as the CGIAR’s greatest weakness. The survey also reported that collaboration with external organizations and research partnerships were the two areas most in need of improvement. In general, the survey found that CGIAR members tended to hold higher views on CGIAR performance than did its partners. For example, 50 percent of members reported improvement in CGIAR performance over the prior five years, whereas the figure was only 29 percent for partners. Box 11.3.1 summarizes some of the finding on partnerships.

Box 11.3.1: Findings of the CGIAR’s 2006 Stakeholder Perception Survey

- Civil Society Organizations are among the most critical of CGIAR’s stakeholders. These groups were also most influential with regard to CGIAR’s overall reputation, including with Members of the CGIAR.
- Coordination of activities across different Centers and the quality of partnerships was seen as weaknesses of the CGIAR. Other concerns included excessive bureaucracy, the lack of funding, and relevance.
- Specific to Centers, good partnership ratings ranged from 43.2 percent (Africa Rice) to 66.6 percent (Bioversity).

On average across all Centers:
- Only 51 percent of respondents agreed that Centers share credit for the success of projects with the partners involved.
- Only 42 percent agreed that Centers do not duplicate efforts underway in other research institutions.
- Only 40 percent agreed that Centers fully and meaningfully involve partners in important decision making.
- Only 45 percent of respondents agreed that Centers serve local needs well.

11.4 Inter-Center Collaborations and Partnerships

CGIAR Centers have established various forms of relationships and collaborations between and among themselves. From the survey this Panel performed, inter-Center partnerships are rated high in importance. More than 52 percent of the respondents consider Center-to-Center partnerships as very important for the delivery of the CGIAR mandate and programs. However, fewer than 25 percent of the respondents rated Center-to-Center partnerships as effective.

Figure 11.4.1: Importance and Effectiveness of Center-to-Center Partnerships

From telephone interviews the Panel conducted with Center staff, Center-to-Center relationships tend to be organized around projects, most of them fewer than five years in duration. Some EPMRs corroborate this. Centers also are attempting to forge resource-sharing partnerships (e.g., ICRAF and ILRI sharing IT and ICT procurement; CIFOR, IWMI and WorldFish share some cooperative services; WARDA and IITA have integrated most of their administration functions, resulting in significant net financial savings).

EPMRs indicate that relationships between the Centers are generally good and that the broad view of DGs towards their sister Centers is positive, although there are some areas of tension between certain Centers. When there are overlapping mandates among Centers, their relationships tend to be more successful when they have worked out a mutually agreeable division of labor (e.g., where IITA and CIMMYT collaborate on maize research, IITA has focused on lowlands and CIMMYT works in mid-to high altitudes).

Center-to-Center partnerships, however, tend to be under-resourced. Limited, if any, funding and other resources are provided for Centers to invest proactively in building
partnerships. The System-wide and Eco-regional Programs are exceptions (these are examined in Chapter 15 on Challenge Programs). While Challenge Programs have provided an opportunity for Centers to collaborate in funded programs and may have improved partnering between Centers, they have also diverted financing away from Centers (see again Chapter 15). Panel interviews in Centers indicated a view of Challenge Programs as a zero-sum financing situation.

With a few exceptions, Center-to-Center collaborations are of the consultative and coordinative partnerships types (see Box 11.2.2). IRRI and CIMMYT, and CIFOR and ICRAF, are examples of more “critical” partnerships among the Centers.

Box 11.4.1: The IRRI-CIMMYT Alliance

The IRRI-CIMMYT Programmatic Alliance is an example of what may constitute a “critical partnership.” In 2005, IRRI and CIMMYT announced a decision to establish a research- and resource-sharing partnership. Specific research priorities were identified by the Centers and agreed upon by the two boards. In order to maximize the operational efficiency of the two Centers, they entered into arrangements to share a range of support services and country offices in China and India.

The IRRI-CIMMYT Alliance has also developed unified governance and management systems for the shared activities. This involved appointing two common Board members in 2006. A special joint boards committee was established assess how best to achieve such a unified system. It comprises of two trustees from each Center, the two directors general, and two external consultants. A second joint board committee is dedicated to assessing shared programs and services.

Alliance of CGIAR Centers

In 2006, the 15 Centers formed the Alliance of CGIAR Centers. The main impetus was a growing anxiety in the Centers that they were being increasingly marginalized in decision making and concerns over pressures for mergers from donors and the Secretariat. The Panel presents its assessment of the Alliance in Chapter 13.

11.5 Advanced Research Institutes

The Independent Review Panel survey of stakeholders sought to determine the importance and effectiveness of CGIAR partnerships with Advanced Research Institutes (ARIs). Over 86 percent of respondents viewed these as important or very important, but only 43 percent assessed them as effective or very effective. In a Science Council survey conducted between November 2004 and early 2006, Centers identified as their most important partners ARIs of both developing and developed countries. About one-third of ICARDA’s partners, for example, are ARIs. ILRI’s EPMR states that 53 percent of papers by ILRI scientists in peer-reviewed journals were authored with ARI partners.
EPMRs give uneven treatment to collaboration with ARIs, suggesting wide variability in the extent of individual Centers’ relationships with them. The eight or so EPMRs that discuss Center partnerships with ARIs indicate that collaboration is concentrated in upstream work in molecular biology, genetic engineering, genomics, bioinformatics and so on. CIMMYT’s EPMR explains the benefits derived from partnering with ARIs as providing it with “the ability to participate in cutting edge research in a wide range of subject areas… eliminating or reducing CIMMYT’s need to make the investments in expertise or infrastructure required to be competitive.” WARDA’s EPMR commended the Center for its long-standing relationships with ARIs, but notes that a specific budget needs to be provided to enhance such collaborations.

The WARDA EPMR finding is echoed in responses to the Independent Review Panel’s survey of stakeholders. When asked what should be done to improve Center-ARI partnerships, 75 percent of respondents indicated they should be strengthened by funding joint projects and programs.

### 11.6 National Agricultural Research Systems (NARS)

The relationship between the CGIAR and NARS has changed considerably over the past 35 years or so. In some regions (for example in Asia) the relationship has changed from CGIAR Centers being mentors of NARS to the Centers becoming collaborators or partners with NARS. This is also the case in some countries of Sub-Saharan Africa (e.g., Nigeria, South Africa and Kenya). In regions and countries where NARS are still relatively weak, the CGIAR continues to contribute to institutional capacity building and the development of national agricultural research systems. On the whole, the CGIAR has co-evolved well with most of the NARS around the world.
In the Panel’s survey of CGIAR stakeholders, 90 percent of all respondents to the survey consider partnerships with NARS as either important or very important. On the other hand, only 45 percent of respondents feel that such partnerships are effective or very effective. Thirty-two percent find them neither effective nor ineffective, and 23 percent believe CGIAR and Centers’ partnerships with NARS are marginally or completely ineffective.

**Figure 11.6.1: Importance and Effectiveness of Partnerships with NARS**

The number of developing country members of the CGIAR increased dramatically in the 1990s. Today, of a total of 64 members, 25 are developing countries. Many of these are represented in CGIAR governance by their National Agricultural Research Institutes (NARIs). In 2006-2007, however, 40 percent of developing country members were in arrears in payment of their membership fees, which precluded their participation in CGIAR governance. There is also a question of the consistency and quality of participation of developing countries. Working Group 2 of the Facilitated Change Management process aptly summarizes what has been expressed to this Panel by various sources:

“Developing country participation in AGM and other governance bodies has been weak and their voices are not strongly heard, in part because they have not been able to follow the complex decision-making processes in the CGIAR and prepare adequately to participate and influence the decisions. Those that participate tend to represent the larger and more powerful developing countries.”

Forums for CGIAR engagement with NARS include regional and sub-regional organizations (e.g. APAARI, FORAGRO), the Forum for Agricultural Research in Africa (FARA) and the Global Forum for Agricultural Research (GFAR). Engagement through these fora has largely been of a consultative nature.
At the Center level, NARS remain key partners. IRRI’s 2004 EPMR shows that the Center had (at the time of that review) bilateral arrangements with 16 rice-growing countries in Asia. Each of these countries has a staff member at IRRI acting as a liaison person. The EPMR concluded that this arrangement has been very successful in providing a single point of scientific contact with IRRI headquarters. NARS, particularly in Asia, collaborate with IRRI in upstream areas of research such as genomics and bioinformatics.9 WorldFish’s 2007 EPMR, likewise, suggests that NARS work with the Center mostly in upstream areas of research, and that NARS represent 74 percent of the Center’s MoUs and Letters of Agreement.10 More than half of Bioversity’s and ICARDA’s partners at the time of their most recent EPMRs (2004 and 2007, respectively) were NARS.

Interviews with Centers’ staff, coupled with the review of EPMRs, indicate different types of partnerships with NARS (see Box 11.2.2). Many of the Centers work with NARS in “coordinative” partnerships through networks or consortia. For example, most Centers have involved NARS in the development of MTPs. In Sub-Saharan Africa, sub-regional organizations such as ASARECA and CORAF and FARA as an umbrella regional body have been instrumental in mobilizing NARS and getting them to participate in Centers’ MTP processes. This is meant to align Centers’ programs with NARS’ priorities, with an emphasis on building NARS capacities.

By its very nature, the Africa Rice Center (WARDA) constitutes a different model of CGIAR Center partnership with NARS. WARDA is largely a membership organization comprising NARS mainly of Western Africa. Unlike other CGIAR Centers that are legally established through Host Country agreements, WARDA was formed by a partnership constitution. WARDA is an example of a “critical” partnership as defined in Box 11.2.2. It is governed as a partnership and has active leadership (beyond the WARDA Center Secretariat) involving African ministers of agriculture. A Center Commissioned Review of WARDA partnerships conducted in 2005 concluded that WARDA partnerships with NARS are growing in size (more NARS joining the partnership) and intensity. In 2006, it was awarded the South-South Triangular Partnership award from the United Nations. This was the first of such awards in the CGIAR. In addition, several African states have conferred various honours on the Center. These partnership acclamations notwithstanding, in the CGIAR’s 2006 Stakeholder Perception Survey, only 43 percent of partners agreed that WARDA performed well on partnerships attributes—the lowest rating of all 15 Centers.11

ASARECA and CORAF assign priority to CGIAR involvement in NARS capacity building in post-conflict states. Centers’ involvement in post-conflict situations, however, has been questioned in at least one EPMR as being “by nature country-specific with low research content. The inputs of Centers into such areas should be strategic and brief and not repetitive or drawn out.”12
The CGIAR’s Performance Measurement System collects data on the percentage of Centers’ scientific papers published with developing country partners. Averages for 2005-2007 range from 29 percent (Africa Rice) to 66 percent (ICARDA). Thus, a significant portion of Centers’ scientific publications (45 percent on average across all Centers) are produced in conjunction with their developing country partners.

Table 11.6.1: Percentage of Scientific Papers Published with Developing Country Partners in Refereed Journals, Conferences and Proceedings

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<tr>
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<tbody>
<tr>
<td>Average</td>
<td>46</td>
<td>43</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Africa Rice</td>
<td>51</td>
<td>25</td>
<td>11</td>
<td>29</td>
</tr>
<tr>
<td>Bioversity</td>
<td>36</td>
<td>43</td>
<td>48</td>
<td>42</td>
</tr>
<tr>
<td>CIAT</td>
<td>54</td>
<td>23</td>
<td>47</td>
<td>41</td>
</tr>
<tr>
<td>CIFOR</td>
<td>37</td>
<td>47</td>
<td>32</td>
<td>39</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>52</td>
<td>65</td>
<td>64</td>
<td>60</td>
</tr>
<tr>
<td>CIP</td>
<td>73</td>
<td>28</td>
<td>52</td>
<td>51</td>
</tr>
<tr>
<td>ICARDA</td>
<td>52</td>
<td>52</td>
<td>95</td>
<td>66</td>
</tr>
<tr>
<td>ICRISAT</td>
<td>43</td>
<td>49</td>
<td>49</td>
<td>47</td>
</tr>
<tr>
<td>IFPRI</td>
<td>20</td>
<td>24</td>
<td>35</td>
<td>26</td>
</tr>
<tr>
<td>IITA</td>
<td>53</td>
<td>52</td>
<td>38</td>
<td>48</td>
</tr>
<tr>
<td>ILRI</td>
<td>45</td>
<td>52</td>
<td>41</td>
<td>46</td>
</tr>
<tr>
<td>IRRI</td>
<td>55</td>
<td>59</td>
<td>43</td>
<td>52</td>
</tr>
<tr>
<td>IWMI</td>
<td>23</td>
<td>33</td>
<td>41</td>
<td>32</td>
</tr>
<tr>
<td>World Agroforestry</td>
<td>58</td>
<td>28</td>
<td>40</td>
<td>42</td>
</tr>
<tr>
<td>WorldFish</td>
<td>44</td>
<td>59</td>
<td>46</td>
<td>50</td>
</tr>
</tbody>
</table>


The relationship between Centers and NARS is not all positive, however. In more than one Center, relations with NARS are tense, at best. Panel interviews with NARS and EPMRs indicate that in too many instances, interactions are characterized more by competition than collaboration. Several NARS representatives complained that the CGIAR treats NARS in a patronizing manner. Competition for funding is an undercurrent in tensions both among CGIAR Centers and between Centers and their NARS partners. In the Independent Review Panel survey, developing country respondents articulated a desire for Centers to devolve relevant activities to strong NARS and for NARS to play a greater role in priority setting.

The Panel believes that the tension with the NARS is a serious issue that needs to be addressed by the Centers. Two major funders told the Panel that they had made funding decisions that significantly curtailed new funding to the CGIAR Centers because of this tension. One said that the tension signals that the CGIAR is not the best channel for building sustainable national capacity in agriculture research.
Interviews conducted with NARS during this evaluation pointed consistently to a number of concrete suggestions and recommendations for improvements in CGIAR-NARS relationships:

- CGIAR-sponsored Centers need to work on an equal level with NARS scientists.
- CGIAR-sponsored Centers need to share credit. Sometimes NARS scientists are not recognized for their research contributions in publications. There should be more co-authored publications.
- Higher priority should be assigned to joint research.
- NARS should be engaged more directly in setting and influencing the research agenda.
- More systematic and strategic collaboration with NARS and universities would provide the CGIAR with a better understanding of local issues, needs and priorities.

11.7 Training and Capacity-Building

UNESCO is currently undertaking a worldwide comparative study of scientific and research capacities, including in agriculture. The preliminary results are reported to underscore a severe and fast accelerating “brain drain” from developing to developed countries and that this may be especially pronounced in the life sciences, including agriculture. If confirmed, this should raise major policy issues and special challenges in the context of the food price crisis described earlier in this report. Existing data already underscore the extent of the imbalances. In Sub-Saharan Africa overall (not just for agriculture), there are 83 scientists per million people. In Asia, this figure rises to 785 scientists per million people, whereas in the OECD, the figure is 1,100. Even in relatively strong regions, distribution is highly skewed. Brazil, for example, accounts for half the agricultural research expenditure in Latin America. About half the countries in Sub-Saharan Africa spent less in 2000 on agricultural research and development than in 1991.13

A number of new initiatives aimed at addressing this situation have recently emerged. The Global Education Initiative of the World Economic Forum in partnership with UNESCO is designed to create public private partnerships focused at the school level, but including higher education. The Gates and Rockefeller foundations are supporting a partnership of 12 African universities to offer joint PhDs in subjects concentrating on agriculture. For its part, there have been discussions within the CGIAR on promoting a world agricultural university, but there are also disagreements about whether this is an area of comparative advantage. IFPRI and ICRASAT, with support of the Gates Foundation, have also developed the Global Open Food and Agriculture University, now called the Agricultural Open Curriculum and Learning Initiative (AGROCURI). The extent to which this furnishes a foundation for a cross-CGIAR strategic initiative, including perhaps a major donor partnership linking in northern universities, could not be determined in this evaluation, but it would appear to be an option worth serious examination. It could also build on the new AWARD program (See Box 11.7.1).
Box 11.7.1: The AGROCURI and AWARD Initiatives

The **AGROCURI** program is a higher agricultural education initiative managed by the CGIAR in cooperation with partner institutions in developing and developed countries. By sharing the global knowledge on agriculture in the form of learning resources, its aim is to address the constraint of limited capacity in developing countries to implement action for pro-poor and sustainable agricultural growth.

The African Women in Agricultural Research and Development (**AWARD**) program is an initiative of the CGIAR with support from the Gates Foundation. The program consists of a series of competitive two-year fellowships designed to fast-track the careers of African women in agricultural R&D. High-performing scientists are selected for fellowships at three critical career junctures – upon completion of their BSc, MSc or PhD degrees.

Source: [www.cgiar.org](http://www.cgiar.org)

Historically, strengthening the capacity of NARS has been a specific CGIAR priority. From 2005, however, the new system priorities changed this and made capacity strengthening a cross-cutting issue to be addressed within program priorities but not as a separate priority. The Science Council articulated the place of capacity building in this way:

“**Capacity building is a key activity to meet the overall goals of the CGIAR. Reflecting the CGIAR’s partnership approach to agricultural research, program-associated capacity building, as well as research on institution strengthening is considered to fall within the 80 percent budget allocation. Only the iterative types of course-related training unrelated to research are considered as falling within the additional 20 percent of budget allocated for other activities.**”

Table 11.7.2 shows that Centers’ expenditures on strengthening NARS, as a percentage of total expenditures, have not changed appreciably since the early 1990s, even in light of reformulated System Priorities and IFPRI’s absorption of a downsized ISNAR.

**Table 11.7.2: Center Expenditures by Undertaking, 1992-2007, US$ million**

<table>
<thead>
<tr>
<th>Undertaking</th>
<th>1992 US$ millions</th>
<th>% of Total</th>
<th>2001 US$ millions</th>
<th>% of Total</th>
<th>2007 est. US$ millions</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing productivity</td>
<td>127.4</td>
<td>49.3</td>
<td>123.3</td>
<td>34.8</td>
<td>178.5</td>
<td>37.1</td>
</tr>
<tr>
<td>Saving biodiversity</td>
<td>19.9</td>
<td>7.7</td>
<td>34.2</td>
<td>9.6</td>
<td>46.9</td>
<td>9.7</td>
</tr>
<tr>
<td>Protecting the environment</td>
<td>29.7</td>
<td>11.5</td>
<td>67.2</td>
<td>18.9</td>
<td>72.4</td>
<td>15</td>
</tr>
<tr>
<td>Improving policies</td>
<td>25.5</td>
<td>9.9</td>
<td>49.0</td>
<td>13.8</td>
<td>80.4</td>
<td>16.7</td>
</tr>
<tr>
<td>Strengthening NARS</td>
<td>56.1</td>
<td>21.7</td>
<td>81.1</td>
<td>22.9</td>
<td>103.2</td>
<td>21.4</td>
</tr>
</tbody>
</table>

Sources: Centers’ MTPs, 2008-10; ILRI MTP 2007-09; World Bank 2003 (OED Meta-Evaluation); 2001 Annual Report

The interim Science Council commissioned an independent evaluation of training in the CGIAR, which was completed in 2006. Among the evaluation’s findings and conclusions were:

- NARS have become more differentiated, with some taking on the role of equal partner to the CGIAR Centers.
The CGIAR’s investment in training and learning continues to be high. About 25 percent of researchers’ time is dedicated to training.

The panel found “strong and consistent evidence” of the effectiveness of CGIAR investments in training and learning.\(^{15}\)

The predominance of project funding has caused Centers to increasingly decentralize training to researchers. The role of centralized “training units” has decreased. This trend has negatively affected NARS’ institutional strengthening and hampered Centers’ abilities to fully exploit past investments.

Only a small proportion of training has been undertaken in areas not within Centers’ research mandates or areas of comparative advantage, but some Centers allocate too many resources to downstream “farmer training.”

The CGIAR needs to collaborate with other institutions with more development-oriented mandates to address broader NARS’ capacity needs. Centers should not cover resource shortages in NARS out of project funds that cannot be sustained. To address broader capacity issues, coordination with other stakeholders, especially governments, donors and universities, is needed.

Trainees’ perceptions of the quality of training were largely positive. Less positive were views about limited opportunities to apply new knowledge.

There is a weakness of quality assurance systems and a lack of pedagogic expertise among Center staff. Informal and individual training quality is not addressed or monitored by any explicit mechanism.

Many recent EPMRs arrived at the same conclusions. They point to a continuing commitment among Centers to training and capacity building activities, despite funding limitations. EPMRs also point out that often the most successful training and capacity building takes place through informal relationships between individual scientists, rather than as part of a formal training exercise.

11.8 ISNAR

In 1971, there were essentially two dimensions to CGIAR partnership. The first was obviously the partnership between a handful of donors and the four founding research Centers. The second was the partnerships between those Centers and an even smaller handful of the most advanced agricultural research universities and institutes in Western countries.

There was, however, another important – and regularly overlooked – factor in the partnership equation of the CGIAR in the 1970s. It was that investments in the CGIAR were complemented during that decade by massive investments, led by the World Bank, in building institutional, professional, scientific and technical capacities in Asia. It was the combination of investments in the CGIAR, ARIS and NARS that allowed for the functional upstream-downstream partnerships of that decade. This was the key to the “Green...
Revolution” in Asia and to the great development success with which the CGIAR is intimately associated.

By the close of the 1970s, the limitations of CGIAR partnerships in other parts of the world, mainly Africa, had become obvious. The technologies of the CGIAR, however appropriate and necessary, would not achieve an impact on the lives of poor people or the food security of poor countries unless bottlenecks and capacity constraints at the country level were also addressed and resolved. This led to the founding of the International Service for National Agricultural Research (ISNAR) in 1979, with a capacity-building mandate. Specifically, ISNAR was tasked with helping to increase the capacities of National Agricultural Research Systems (NARS).

Four EPMRs (1985, 1989, 1996 and 2002) were conducted on ISNAR during its 24-year lifetime (1979-2003). In retrospect, these seem to point to an institution that struggled from the beginning to define itself clearly and to generate donor enthusiasm.

Table 11.8.1: Findings of the Four EPMRs of ISNAR

<table>
<thead>
<tr>
<th>EPMR</th>
<th>Principal Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 1985</td>
<td>• Many donors confused about ISNAR’s role</td>
</tr>
<tr>
<td></td>
<td>• Directors-General of other Centers also confused on ISNAR role</td>
</tr>
<tr>
<td></td>
<td>• Confusion arising from ISNAR not having a clearly enunciated medium-term strategy</td>
</tr>
<tr>
<td>Second 1989</td>
<td>• Progress made, but ISNAR lacking an institutional approach to capacity strengthening of NARS</td>
</tr>
<tr>
<td></td>
<td>• ISNAR functioning on an individual, case-by-case basis; in need of multiplier approaches</td>
</tr>
<tr>
<td>Third 1996</td>
<td>• Many achievements praised, but ISNAR not equipped to meet new and emerging needs</td>
</tr>
<tr>
<td></td>
<td>• ISNAR’s niche still unclear and needs to be defined</td>
</tr>
<tr>
<td>Forth 2002</td>
<td>• A devastating EPMR</td>
</tr>
<tr>
<td></td>
<td>• Unacceptably low level of scientific output (0.2 peer-reviewed journal articles per year per scientist)</td>
</tr>
<tr>
<td></td>
<td>• Lack of clarity on clients and no clear idea of comparative advantage</td>
</tr>
<tr>
<td></td>
<td>• Questionable skills mix.</td>
</tr>
<tr>
<td></td>
<td>• Few significant indicators of capacity building impact.</td>
</tr>
</tbody>
</table>

By the time of the fourth EMPR, ISNAR’s financial situation had become desperate. Overall funding had been just under $10 million in 1986. In 2001, it stood at $8.3 million (current dollars). By 2003, an operating deficit of about $0.5 million was projected after a draw down of reserves. Also in 2003, ISNAR’s fixed costs (i.e., physical facilities, administration, management, governance and support infrastructure) equaled almost 80 percent of total unrestricted funding. The EPMR concluded that “business as usual is not an option.”16 It posited three options and recommended that ISNAR transfer its policy research to IFPRI and decentralize its research activities. It further recommended that the focus should be on building capacity in the regional and sub-regional organizations “so that they could take over its functions in five years.”17

The Board of ISNAR disagreed with the conclusions and recommendations of the EMPM. At the AGM in 2002, a restructuring team was appointed. Led by an independent chair, its
membership included the chair and another member of the ISNAR board. The restructuring team’s unanimous report of September 2003 recommended the immediate closure of ISNAR as a freestanding CGIAR Center and that the program be transferred to IFPRI. It also recommended that:

- “The headquarters of the program would be in Sub-Saharan Africa with close links to national research systems and sub-regional organizations, in order to achieve much greater decentralization. It is important to stress that the recommendations involve a clean break from the existing structure of a stand-alone Center. Under our proposal, the entire governance of the program would pass to the Board of IFPRI and a director for the ISNAR Program would report to the DG of IFPRI. There would be no separate or Joint Board”\(^{18}\)…(and)
- For a period of at least three years, donors continue to identify funding for the ISNAR Program with the contribution for IFPRI, subject to the satisfactory evolution of the restructured ISNAR Program.”\(^{19}\)

ISNAR was merged with IFPRI in April 2004. The key question that this raises for this evaluation is what the effects of this change have been on capacity building for NARS. Has the change facilitated the strategic focus recommended in the fourth EPMR on building capacity in the regional and sub-regional organizations, so that they could take over its functions of NARS capacity building within five years? The evidence on this question suggests a very negative answer.

A recent (September 2007) independent review\(^{20}\) was charged to examine the overall consequences of the transfer of ISNAR into IFPRI. The study was compressed into a very brief three-month period.

The study reported a substantial decline in finances. Unrestricted funding declined from $3.445 million in 2004 to an estimated $2.143 million in 2007 and restricted financing raised had been minimal (about 30 percent of total budget). The overall budget (restricted and unrestricted) for the activities of what was ISNAR declined to less that $3 million for 2007 (Table 11.8.2). Denominated in 2007 dollars, ISNAR expenditures declined from $15.5 million in 1993 to $10.51 million in 2001 and then to $2.8 million in 2007 as a division of IFPRI. This represents an 82 percent decrease. On perceptions of donors, the report records donors’ indications that they “had heard nothing from or on ISNAR.”

**Table 11.8.2: ISNAR Expenditure (US$ million)**

<table>
<thead>
<tr>
<th>Year</th>
<th>ISNAR as a Self-Standing Center</th>
<th>ISNAR as a Division of IFPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>$10.5 million</td>
<td>$2.8 million</td>
</tr>
<tr>
<td>1996</td>
<td>$11.0 million</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>$8.5 million</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>$8.3 million</td>
<td></td>
</tr>
<tr>
<td>2007</td>
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</tbody>
</table>

The report reviewed a new strategic concept that had been developed and assessed that the ISNAR Division “had made substantial progress in the last 6 months in clarifying priorities
and translating them into strategy”, although it also noted that “ISNAR’s strategy and concept, particularly the formulation of programs are still under development.” Thus, almost four years after the transfer of ISNAR to IFPRI, the new strategy was still under development. This may help to explain the precipitous decline in funding that occurred over this period.

The difficulties experienced by IFPRI in attempting to fulfill the ISNAR mandate for training NARS staff in developing countries have doubtless been exacerbated by changes in donor funding and a predominance of new funding tied to projects. The recent Science Council evaluation of the impact of training in the CGIAR concludes:

“The increase in project funding and the reduction in unrestricted funds available for training is probably the most important single factor which has affected the evolution of training in the CGIAR over the past decade … (T)he results of these cutbacks have been to lower the yield on the CGIAR’s large investments in training and learning. The disadvantages of training within projects … Some of the weakest NARS, most in need of support, may be at a double disadvantage since they neither have the capacity to formulate fundable projects, nor to pay for training. The reduction in unrestricted funding has reduced pedagogic support to Center research staff. This has occurred precisely at a time when technological change opens up new possibilities for dissemination, but requires expert guidance in both the computational and educational aspects.”

Impact of CGIAR-NARS Partnerships in Sub-Saharan Africa

Reliable, quantitative evidence of the impacts of CGIAR-NARS partnerships is almost non-existent. A recent attempt was made by the Science Council to address this for the partnership in Sub-Saharan Africa (SSA). The Science Council study attempted to trace the research-to-impact pathway for CGIAR work. It asked the question: “Can the benefits estimated in the limited number of credible impact assessments available to date justify the entire expenditure of the CGIAR in SSA?” Beginning with a meta-analysis, the study selected 22 studies for calculations of aggregate rates of return for CGIAR and partner investments in the region. The limitations of the study were numerous and fully acknowledged by the authors of the study. For example, the possible negative impacts associated with the research investments were not analyzed, since the focus was only on economic impacts. Also, data were not available for the costs incurred by NARS partners, which were probably quite substantial. Finally, the study noted that the few credible impact assessment studies with plausible results were mainly in two areas: biological control and crop germplasm improvement. Because of this, the calculated returns of the study are mostly attributable to a single technology: control of the cassava mealybug.

The main finding of the study was that: “…a small number of successful projects… representing only 5 percent of CGIAR-NARS total research investments in SSA, had recovered the entire cumulative investment of these institutions over a period of 35 years.” This suggests truly astounding rates of return.
Even allowing for the shortcomings of the study, its results suggest that the returns from CGIAR-NARS partnerships in SSA have more than justified the costs. This said, a scan of five of the studies included in the Science Council study (only five of these were in referred journals) shows that none of these claimed any linkage to ISNAR. It seems unlikely that connections could be claimed between the work of ISNAR and the high rates of return from the CGIAR-NARS partnerships examined in this study.

Conclusions Regarding ISNAR

A review of ISNAR from its inception to the present suggests six main conclusions:

1. The decision to establish ISNAR in 1979 as a freestanding Center to help build national capacities for agricultural R&D was the right idea. The evidence of the need for improvement in national and local R&D capacities was and is indisputable. Large-scale investments in the CGIAR, ARIS and NARS were the key to the “Green Revolution” of the 1970s in Asia. Without similar attention to building the capacities for similar partnerships in Africa, a similar revolution in Africa continues to prove elusive.

2. ISNAR was under-capitalized as a freestanding Center, and funding deteriorated since its absorption into IFPRI. The financial limitations restricted its scope and leverage and probably reinforced its unattractiveness to donors.

3. Financing aside, ISNAR has not presented strategies capable of attracting financial support. Although different strategic frameworks were developed over time, the four EPMRs pointed to weak strategic focus, absence of clear priorities, lack of clarity on comparative advantage or failure to equip itself with the capabilities needed to meet changing situations and new challenges.

4. During its lifetime as a free-standing Center, ISNAR seems to have encountered difficulty in building complementarities with the other Centers and in inscribing itself as an important partner to their work. The full synergies needed across the entire system for an international public goods delivery system proved elusive. As the third EPMR noted, ISNAR delivered many valuable products but did so more on an individual project-by-project basis than on an institutional or program basis.

5. The decision to close ISNAR as a self-standing organization was fully justified. The ISNAR Restructuring Team that made the recommendation took all factors into account, not merely the state in ISNAR financing. Indeed, the key factors in its recommendation were programmatic and strategic potential and comparative advantage.

The problem of capacity weaknesses to undertake R&D, to adapt it to local needs, and to make its products available to poor farmers remains a serious obstacle to development.
Capacity weaknesses at country level push Centers downstream in search of development effectiveness. This reduces their upstream capabilities and brings criticism that they stray from their core mandate. The Centers are, in effect, caught in a trap. This issue needs to be placed in its correct perspective, which necessitates looking far beyond the role and capabilities of the CGIAR and to consider the consequences of the dangerous under-investment over the past two decades in the science-to-user requirements of agriculture. This, of course, is not only a CGIAR problem, but a much larger one.

This is an especially challenging area in international development. According to the background study prepared on this subject for the WDR, provision of agricultural extension services confronts problems that include: “The scale and complexity of extension operations; the dependence of success in extension on the broader policy environment; the problems that stem from the often less than ideal interaction of extension with the knowledge generation system; the profound problems of accountability incentives of extension employees both upward (to the managers) and downward (to their clients, particularly female farmers); the oftentimes weak political commitment and support for public extension; the frequent encumbrance with public duties in addition to those related to knowledge transfer; and the severe difficulties of fiscal unsustainability faced in many countries. Moreover, as many factors affect the performance of agriculture in complex and contradictory ways, it is difficult to trace the relationship between extension inputs and their impact at the farm level and beyond, so that commitment by public and other investors is often problematic.” This points squarely to the problem of providing and financing the complementary component of the agricultural research international public goods, whose core component is a key mandate of the CGIAR. If other activities, such as extension services, are not made available in developing countries, even if the CGIAR conducts excellent research and produces outstanding results, these will not reach the poor farmers who are dependent on the adequate functioning of extension services for improving productivity.

ISNAR was never going to be able to address adequately difficulties and challenges of this magnitude. A strategy for an international public goods delivery system (see Chapter 12 of this report) is called for. This needs to mobilize resources on the basis of carefully selected partnership arrangements brought to scale and differentiated by need. This will necessitate adequate financing to assure the availability of both the core and complementary components of such a system. The question of what roles and accountabilities such a system should assign to the CGIAR and to others must be addressed and resolved. Otherwise, the lessons of ISNAR will not have been learned.

11.9 CGIAR-CSOs Partnerships

Situating Civil Society

Many international development organizations use the terms Civil Society Organizations (CSOs) and Non-Governmental Organizations (NGOs) interchangeably. The CGIAR is no
exception, but for the most part CGIAR literature refers to NGOs. Because of this, the Panel uses that term in this report. It is, however, now generally recognized that the term "civil society" is a much broader concept than NGOs. Civil society is populated by organizations such as registered charities, development non-governmental organizations, community groups, women’s organizations, faith-based organizations, professional associations, trade unions, self-help groups, social movements, business associations, coalitions, and advocacy groups.

One of the most startling transformations of the past quarter century has been the explosive growth in the number and variety of organizations engaged in international development. The online web site, “development directory” (http://www.devdir.org/) lists over 50,000 formal entities that claim to be international development organizations. The vast majority of these are CSOs. Many are obviously of modest size and reach, but others have financial resources that exceed by considerable margins those of some bilateral development agencies. Whether large or small, however, taken as a whole, civil society has become a powerful force in all aspects of international development.

While there have been numerous studies on NGOs, few have attempted to examine the magnitude of their global reach. Two such studies stand apart in their attempts to look into the recent growth, transformation, and impact of the international not-for-profit sector. The first is the extensive work undertaken over almost two decades by the Johns Hopkins Comparative Non-Profit Sector Project. It involved a study across 22 nations, including some from Central and Eastern Europe and Latin America. Excluding religious organizations, its main findings are that international NGOs:

• comprise an annualized $1.1 trillion industry
• deliver more ODA than the entire UN system
• have some 19 million full time employees (almost 30 million if part time and volunteers are added), equalling 41 percent of total public sector employment
• are growing at over 4 percent per year
• would be the eighth largest economy in the world If they were a separate economy

The study concludes that the growth and influence of "transnational civil society" is one of the dramatic developments in post-cold war international affairs.

The second study by the Carnegie Endowment for International Peace was even more ambitious. Through a series of case studies, it examined the geo-political implications of the growing reach and force of NGOs. Among its main conclusions were the following:

• Non-state actors (other than organized religion) have never before approached their current importance and influence.
• Increasingly NGOs are able to determine the policies and practices of governments and trans-national businesses—but with little accountability for the consequences of their actions.
• Technology—the power of networking and privileged access to the international media—furnish the platforms.
• “A global associational revolution has occurred … most of it since the end of the cold war.”

NGOs have become a potent force in almost all developing countries and a vital actor for the delivery of international public goods. This is especially the case in weak states with poorly developed public institutions. In many countries, NGOs exert a strong influence on the agriculture sector. As developing country governments and official aid agencies moved away from the agriculture and rural development sectors in the 1980s, international NGOs (INGOs) assumed an increasingly prominent position. Traditionally relief-oriented INGOs such as Oxfam, CARE International, Catholic Relief Services, and World Vision extended their operations beyond relief operations to address issues of agricultural productivity and food security. As the global environmental movement of the 1980s and 1990s took root, environmental NGOs shifted from pure conservation to programs on sustainable agriculture and “sustainable rural livelihoods.” In the last two decades, several of these INGOs have created a worldwide network of country offices and field level operations. They also demonstrate an increasing capacity to attract the highest levels of professional and technical expertise.

In addition to these INGOs, developing countries witnessed a significant expansion of national and local NGOs largely in the form of private voluntary groups of professionals, church-based training programs, networks of Community-Based Organizations (CBOs), farmers’ organizations and a range of subject matter networks. In the agriculture sector, national farmers’ associations are one example of these subject matter networks. Similar networks exist for the environment, human rights, water, sanitation, etc and some have become highly specialized in, for example, organic agriculture, agro-processing and agricultural marketing. Consequently, the configuration of national NGOs often range from small formations with few people to highly professional and well staffed NGOs as well as networks of membership organizations. For the most part, only the larger organizations have been subjected to independent evaluations of their effectiveness and impacts. This complicates the challenge of identifying partnerships to fill the linkage gap between agricultural research and technology delivery.

Several INGOs have gained considerable legitimacy and leverage by their sheer financial size. The aid budget of World Vision exceeds that of Italy. The annual expenditure of the Bangladesh Rural Advancement Committee (BRAC) is almost double that of the CGIAR and BRAC has launched development programs in three African countries as well as others in Asia. In other cases, NGOs …”have large-scale service-delivery programs akin to those run by local governments.” The influence and leverage of INGOs also derive from their mastery of today’s interconnected global media. Because they claim to speak for the
disadvantaged (“the voice of the voiceless”), they have appropriated exceptional moral authority, public recognition, and political power. As the study by the Carnegie Endowment concluded, this can be used for ill as well as for good.

The power and reach of NGOs has made them central actors in international development and in the mobilization, adaptation, and delivery of international public goods. For example, in its short life of five years, the Global Fund for the Fight Against AIDS, Tuberculosis and Malaria (GFATM) has committed over $11 billion in 136 countries and disbursed over $6 billion. This has been dependent in large measure on partnerships with civil society.

Since about the end of the 1980s, recognizing these factors and changes, international development agencies have increasingly sought partnerships with NGOs to achieve their missions and development objectives. An early example in agriculture is the Extended Cooperation Program launched in 1987 by the International Fund for Agriculture Development (IFAD) to provide a framework for strengthening collaboration with NGOs.

The CGIAR and NGOs

Formal, system-level engagement between the CGIAR and NGOs dates from the Lucerne Ministerial Meeting of 1995 where it was decided to establish an NGO Committee (NGOC). It was to serve as the main mechanism for interactions between the CGIAR and NGOs and as a springboard to new partnerships. Once formed, the Committee adopted as its main objectives strengthening a people-centred approach to sustainable agriculture R&D and contributing to the mutual understanding between the NGOs, the CGIAR, and farmer, fisheries and forestry organizations.35

Almost from the outset, the relationship ran into difficulties. After its first year, which was devoted to learning more about the CGIAR, the NGOC reported that many CGIAR staff seemed resistant to working with NGOs and that domestic NGOs in countries where CGIAR Centers were located were either unaware of or confused about the work of the Centers. The NGOC tabled proposals to improve this (Box 11.9.1). These were noted by the CGIAR Secretariat, but little action followed. NGOC members began to see the relationship working in one direction only and to voice frustration and disappointment.

Box 11.9.1: NGOC Proposals for CGIAR Collaboration, 1996

- Reinforcement of NGO-CG Centers’ collaboration and the need to invest more time and money in seeking out NGO research partners;
- NGOs must be partners in research process from beginning to end;
- Create a specific fund for collaborative research programs involving NGOs;
- International Centers should be mandated to work closely with NGOs to disseminate farmer-inspired research;
- Put a higher priority on including NGO representatives on governing bodies of the Centers.
One year later (1997) at the AGM, the NGOC presented a second position paper, this one specifically on biotechnology. The paper drew attention to NGO misgivings and warned that endorsement of biotechnology by the CGIAR system might alienate much of the NGO community. Biotechnological development, the paper claimed, was dominated by large transnational corporations, and it expressed concern over the biosafety of their products. It urged review of the relationship of the CG system with the Private Sector. The NGOC paper brought into stark relief within the CGIAR two entirely different world views – that of NGOs that was essentially opposed to a new and emerging element of biological science and that of most CGIAR scientists that inclined to working with that new science and, by extension, with the private sector in its application. The position paper was noted at the AGM but no concrete action was taken. The level of NGOC frustration became more palpable.

Further efforts were made, however. In 1999, the NGOC tabled a new set of proposals on identifying research priorities of concern to small farmers and followed this with regional workshops in 2000-2001. The workshops accorded specific attention to identifying arrangements and projects for partnership between the CGIAR and NGOs. The NGOC proposals were acknowledged by the CGIAR, but without consequent actions.

Danger signals on the NGOC-CGIAR relationship increased steadily during this period, with NGOC members openly voicing frustration at non-responsiveness to their proposals. At the same time, the NGOC became dominated by NGOs that were ideologically opposed to biotechnology. In 2001, the NGOC endorsed a broad Civil Society declaration signed by over 70 groups severely criticizing the report of the CGIAR Change Design and Management Team. The declaration found aspects of the report “deeply flawed … this will seriously undermine the viability and effectiveness of the CGIAR system in the future.”

At AGM 2002, matters came to an impasse. The NGOC report accused the CGIAR of:
- deviating from its poverty-reduction mandate to produce public goods for the benefit of the poor;
- adopting a corporate agenda for agricultural research and development;
- failing to hear the voice of farmers;
- failing to support an immediate moratorium on the release of GM crops in the Centers;
- failing to safeguard germplasm in the public domain; and
- promoting genetic engineering technologies and products, incompatible with farmer-led agroecological research.
The NGOC announced that it was suspending its membership in the CGIAR and conducting a review to determine further action. When the same AGM announced that membership in the CGIAR had been granted to the Syngenta Foundation, matters deteriorated even further. A “People’s Street Conference” to protest against the CGIAR was organized and an NGO petition was circulated calling on all members of the NGOC to resign in protest. The 1995 Lucerne goal of building partnerships with NGOS through the establishment of a Partnerships Committee lay in tatters.

Approximately one year following the collapse of the NGOC-CGIAR relationship, an independent evaluation of the partnerships committees (both the NGOC and the PSC) was commissioned to review the past and make suggestions for the future. The report of the independent evaluation found that three main factors had combined to create a “fatally flawed” arrangement. The three factors were:

- A huge mismatch in expectations. The CGIAR viewed the new NGOC as an instrument to open a general dialogue, whereas the NGO participants envisaged rapid progress to full incorporation of their issues, concerns and priorities;
- The failure to work out the rules of engagement ex ante, to negotiate an agreed operating framework, including the processes to address and resolve conflicts;
- The absence of agreed programs of action and structures of mutual accountability.

There was also a factor of timing. The coincidental emergence of extremely contentious issues such as intellectual property rights, Genetically Modified Organisms (GMOs), biotechnology, TRIPS, globalization, and concern over corporate dominance and private profit at the expense of public good — issues on which there are deep conflicts to this day — compounded matters further.

The independent evaluation report concluded that both parties to the targeted partnership had exhibited good faith but that profound philosophical differences and structural deficiencies, especially the opaqueness of the remit assigned to the NGOC, had trapped both in a no-win situation. It argued for a cooling off period, a stock-taking and a careful step-by-step approach of consultations that would begin by putting contentious issues on the table and working these through. It urged the CGIAR to desist from the development mantra of partnerships as ends in themselves and to focus on specific purpose partnerships. It suggested that governance structures needed to make distinctions between shareholder and stakeholder and it recommended establishing clear rules of engagement and codes of conduct for CGIAR governing bodies. It also advised strongly against generic constituency representation such as the NGOC, as such an arrangement could not hope to represent the diversity of interests and capabilities of NGOs. It further set out a recommended framework of preconditions before formulating partnership agreements, including:
• Demarcation of boundaries between shareholders and stakeholders; stakeholders should be clear that they are not shareholders. They do not provide the financing and hold no automatic entitlement to it, but their voice needs to be heard on financing decisions and the space for that must be assured;
• Delineation of a guiding framework (a policy framework) for partnerships, differentiating areas where leadership and direction would come principally from individual Centers versus those that would require system-wide approaches;
• Establishment of/agreement on “coincidence of objectives,” including articulation and agreement on strategic objectives;
• Specification of time-targeted desired outcomes, with reasonable ongoing feedback on performance and evaluation as appropriate;
• Inclusion of exit strategies; and
• Where finances are part of a partnership, advance understandings on resource allocations, accountability and management standards.

Over the past four years, the CGIAR seems for the most part to have worked to take into account its experience with the NGOC, and also to take into account the recommendations of the 2004 independent evaluation of partnership committees. In 2005, the Secretariat undertook a round of consultations with Centers, Members, and specialists in working with NGOs, and submitted a draft framework to ExCo 9 (October 2005). Following discussion and subsequent revision, the paper was approved at AGM 2006.

The paper furnishes a basis for more systematic engagement with NGOs, but also differentiates between system-level leadership and the actions that can only be led by individual Centers (see Table 11.9.2). It draws attention to the fact that many engagements already exist between the CGIAR and NGOs, but that these tend to be dispersed and are often unrecognized. It agrees with the 2004 evaluation that the diversity of NGOs means that engagement should not be “through a single linkage (such as the NGOC) as in the past.”

The wording of the paper has been carefully chosen to indicate that there are NGOs that simply will not agree with the science of the CGIAR or with its priorities for research ( … “to move forward in enhancing engagement between the CGIAR and CSOs sharing the CGIAR mission and interested in the research priority areas agreed by the CGIAR” (emphasis ours). The implication is clear: partnerships can be established only where there is a mutuality of values and interests.

Table 11.9.2: Collaborative Actions and Lead Responsibilities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Lead</th>
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<tbody>
<tr>
<td>Consultations on thematic research area (with regional outreach) for strategic program planning</td>
<td>Centers</td>
</tr>
<tr>
<td>Partnerships throughout project development, implementation, evaluation and impact assessment</td>
<td>Centers</td>
</tr>
<tr>
<td>Strategic dialogues for promoting shared visions for the future</td>
<td>Centers &amp; System</td>
</tr>
<tr>
<td>Dialogue on System priorities and policies</td>
<td>System</td>
</tr>
<tr>
<td>Partnerships in Challenge Programs</td>
<td>System</td>
</tr>
</tbody>
</table>
Among the other initiatives recommended in the report are: (i) establishing specific CSO focal points; (ii) managing knowledge and communicating information through a dedicated web portal and interactive virtual communications; (iii) enhancing opportunities for direct exchanges including through CSO-organized events and a biennial CSO Forum at the AGM; (iv) furthering GFAR-CGIAR collaboration in conducting CSO consultations; (v) developing regional consultations on strategic planning, beginning with a pilot in West/Central Africa and/or East Africa; (vi) developing in consultations with NGOs a sub-regional strategic plan as “one of the logical steps in the consolidation of CGIAR activities in Africa,” and (vii) conducting a regular three year review of partnership effectiveness.

Finally, the paper stated: “In view of the new and comprehensive approach to be taken to CGIAR-CSO relations, there would seem to be little need for a separate NGO Committee.” This was agreed at the 2006 AGM and the NGOC was formally dissolved.

Also at the 2006 AGM, the first-ever CSO-CGIAR Forum was held. Extensive investments made beforehand included a professionally facilitated four-week “virtual conversation” involving nearly 160 participants. This guided the agenda for the Forum. A CSO-CGIAR Forum Advisory Group, comprising a dozen members representing CSOs, CGIAR Members, Centers and others, provided guidance throughout the planning process. The virtual conversation concluded that there were important complementarities and that the Forum should focus on how to capitalize on these. The respective strengths of NGOs and the CGIAR were listed complementarities, but these comprise essentially a statement of political correctness at the highest level of generality. CSOs were noted for capacity to implement at the grassroots level, do policy advocacy, coordinate short-term actions that benefit clients, assure continuity. CSOs were seen to have strong linkages to national systems, are good in taking initiatives and reaching out to farmers. The CGIAR strengths are perceived in research, global networking, and enriching the germplasm required by poor farmers.

The evaluation forms completed at the end of the Forum were overwhelmingly positive. Of the 124 persons who filled out the form, 118 rated the Forum as useful or highly useful. The Summary of Proceedings of the Business Meeting of the AGM also refers to comments from “many members that NGO-CGIAR relations are now on the right path.”

At the close of the Forum, the CGIAR announced the creation of a $1 million pilot Competitive Grants Program for projects aimed at enhancing CSO-CGIAR collaboration in agricultural research for development. More than 150 concept notes were received in
response to the first call from which four awards were made. The four projects are now ongoing and are to be evaluated against the criterion of what facilitates effective CGIAR-NGO partnerships. Other results from the Forum include experimentation with different web based approaches in order to continue the consultative dialogue and to place it on a continuous basis.

Thus, it appears that, for the time being at least, the CGIAR has moved beyond the very difficult period in its system-level relationship with NGOs. The new policy framework provides a set of guiding principles and concrete initiatives against which to move the relationship to more productive and sustainable levels. The careful preparation for the first Forum seems to have taken into account the lessons of the difficult experience with the NGOC relationship, and the new policy allows the space and patient approaches to build mutual trust. There is, however, a continuing risk of generating expectations that cannot be met. To some extent this risk seems to have been apparent in the Forum itself. One informal paper prepared on the basis of the discussions at the 2006 NGO Forum lists 19 “Priority Focus/Themes” and 27 “collaborative mechanisms.” The same paper also suggests that working together should involve: “Staff exchanges between CSOs and CGIAR; Fellowship program for CSOs; and $250,000 for training CSO leaders in fundraising.” It will be important to maintain perspective and contain unrealistic expectations on both sides if prospects for CGIAR-NGO system-level partnerships are to be realized.

The Centers and NGOs

In the Independent Review Survey of Stakeholders, 58.7 percent of respondents said that CGIAR and Centers’ partnerships with NGOs were important or very important. Only 20 percent thought those partnerships were effective (Figure 11.9.1).

Figure 11.9.1: Importance and Effectiveness of Partnerships with NGOs

The results of a survey conducted by the Science Council in 2006 on Center collaboration showed evidence of numerous active partnerships between Centers and NGOs. In total,
the Centers reported 3,395 organizations with which they collaborate, although the paper
cautions care in interpreting this number, as Centers often collaborate with the same
organization more than once. The largest number of reported partnerships was with
NARS (30 percent), while the second largest was with Southern NGOs (12 percent). Only
4 percent of reported partnerships were with Northern NGOs. Almost no multiple
partnerships were reported; 87 percent were “monogamous” (i.e., between one Center and
one organization).

There have been no specific evaluations of the effectiveness of Centers-NGO Partnerships
and EPMRs generally give these cursory treatment. The Bioversity review simply observes
that IPGRI remains largely unknown throughout the (NGO) sector. The exception is the
EPMR on WorldFish, which looked into the performance and value of the Center’s
partnerships with NGOs. It found that NGOs (together with NARS) constitute the largest
partnership categories of WorldFish and that over 60 percent of its partners in Asia are
NGOs. It added specifically that most of WorldFish’s work in transforming outputs to
outcomes and impacts has been achieved with NGOs.

11.10 CGIAR-Private Sector Partnerships

Overview and Current Assessment

The 1995 Special Ministerial Meeting in Lucerne, Switzerland explicitly recognized that
mutually beneficial partnerships with the private sector were critical to the CGIAR. It
recommended the establishment of a committee that would enable the CGIAR to forge its
partnerships with private sector. The Private Sector Committee (PSC) of up to eight
members plus a chairperson was established the same year. One of the tasks of the PSC is
to provide the CGIAR with “a private sector perspective on the current status of global
agricultural research and future needs. It serves as a link between the CGIAR and agricultural
private sector organizations in both the North and South.”

Since the Lucerne meeting, the general literature and annual reports of the CGIAR and its
Centers have contained repeated mention of the importance of partnering with the private
sector. Some of the Centers have established different partnerships with private sector
institutions. Most Medium Term Plans (MTPs) express the importance of establishing
partnerships with private sector.

Nine years after the Lucerne meeting and the inauguration of the PSC, however, an
independent evaluation found little evidence of concrete progress in building operational
partnerships between Centers and the private sector. The study reported that previous and
then current members of the PSC were discouraged and frustrated by the lack of progress.
The PSC had formulated numerous proposals aimed at leading to operational
partnerships. For example, the PSC had urged the CGIAR to identify assets of value to
others and to formulate specific propositions of the partnership potential of the CGIAR
with the Private Sector. To facilitate this, the PSC identified ten key assets of the CGIAR that it thought could be of significant value to the Private Sector, including advanced scientific expertise in 20 to 25 crops, well established crop-testing network and experience, positive image and accumulated political capital, a capacity to work cooperatively with developing countries in establishing policies, regulatory frameworks and standards, etc. The PSC suggested that these assets could be used by the CGIAR as ‘Trading Chips’ on forming partnerships with the Private Sector.

The evaluation reported that proposals and inputs such as these had been met with silence from the CGIAR. The CGIAR and individual Centers, it concluded, were unclear and confused on what they wanted from the private sector and on expectations for the PSC. Accordingly, the evaluation recommended a specific, time-bound litmus test of the durability and value of the PSC relationship that had been established at Lucerne. Specifically, it called for agreement on specific objectives to be … “market tested over the next two to four years with the market test being the determination of whether [concrete, operational linkages could be established]. This… should be accomplished via the conversion of the PSC program into a specific work plan which would include an activities profile, specification of ‘end points’, milestones and a framework for ongoing evaluation.”

The situation today appears marginally better since 2004, but the improvements have been modest and progress remains disappointingly slow. The Chair of the PSC reports a continuing high level of frustration and concern that the CGIAR as a system seems still to lack clarity on what it wants from the private sector and what kinds of partnerships it wishes to establish. A principal barrier continues to be the absence of a system “entry point.” In a further attempt to address this, the PSC has formulated a work plan based on three pillars:

- The first is the Scientific Know-How Exchange Program (SKEP), an initiative initially launched by the World Bank and CGIAR’s Private-Sector Committee. Under this umbrella, the private sector makes available its leading scientists for agreed periods of time to share non-proprietary knowledge and to assist in research ventures. A coordinator for this program has been established by the private sector.

- The second are workshops for Deputy-Directors General of CGIAR Centers and research managers from the private sector on research productivity and research systems. These would have the twin aims of imparting and sharing knowledge and building relationships between the private sector and the Centers. The first such workshop is now scheduled for 2009.

- The third is a regular schedule of high-level dialogues on strategy and programs with the Alliance, the Science Council and the Secretariat. PSC discussions have tended to be mainly with the CGIAR Secretariat and the intent of this pillar would speak more directly with the scientists and the Centers.
These three pillars are aimed at building more direct connections between the private sector and the individual Centers. The SKEP program dates from 2005 and there have thus far been no evaluations of the extent of its take-up or its results.

Part of the challenge to building CGIAR-private sector partnerships is the relative lack of successful examples to act as guides. A recent IFPRI study suggests that examples of successful public-private partnerships in agricultural research are still somewhat rare. This is especially evident when compared to the fields of health and infrastructure, where such examples are numerous. The IFPRI study notes that in agricultural research, public entities and private companies are often constrained by joining forces by their different objectives, by the high costs of collaboration, and by a lack of information on successful partnership models. The private sector can be frustrated by the slow pace of decision-making and action in the public sector. There is also the fundamental matter of trust. The evidence presented in the 2004 study on the CGIAR partnerships committees indicated high levels of distrust in both civil society and individual Centers of the motives of those in the private sector, even when a private company is operating through a philanthropic arm, such as the Syngenta Foundation.

On a system-wide basis, there have been few studies of CGIAR-private sector partnerships. One of these underscored the serious barriers to the exchange of proprietary knowledge between the private sector and the CGIAR. A more recent (2006) study also pointed to these barriers and added that mutually negative perceptions would make it especially difficult to overcome them.

At the level of the individual Centers, recent EPMRs suggest increasing attention to partnerships with the private sector. For example, IRRI’s fifth and sixth EPMRs emphasized the importance of the Center strengthening its partnerships with the private sector. The sixth EPMR (2005) noted that potential value of IRRI’s partnerships with the private sector and supported or endorsed IRRI’s Policy on Partnership with the Private Sector. CIAT’s 2007 EPMR commended the Center for forging partnerships and encouraging various forms of public-private partnerships. CIP’s 2007 EPMR recommends that the Center should develop a strategy for partnerships with private sector. On the whole, most other Centers’ recent EPMRs have emphasized the importance of Centers building partnerships with the private sector.

However, partnerships with the private sector still constitute a relatively small percentage of total CGIAR collaborations or structured relationships. A 2007 IFPRI study on public-private partnerships in the CGIAR shows that some Centers (e.g., WorldFish Center and CIFOR) did not report any partnerships with the private sector between 2004 and 2007. One of this study’s main findings is that between 2004 and 2007 active partnerships with the private sector were concentrated in four of the larger or older commodity Centers: IRRI, ICRISAT, CIAT and CIMMYT. The study concludes: “Centers are generally not
using PPPs as a vehicle for joint processes of technological innovation wherein partners collaborate on the planning and execution of project activities.” 

According to a survey of CGIAR collaborations published by the Science Council in March 2006, only four Centers (CIAT, CIMMYT, ICRISAT and IRRI) considered the private sector a highly relevant collaborator. The survey concluded: “Private sector collaborations are still rare in the CG system, and are seldom short-listed by Centers as highly relevant.”

This finding is also supported by non-CGIAR sponsored research. A study that included five CGIAR-private sector partnership-based agricultural biotechnology projects in Kenya found the projects to be small, donor-dependent, and loosely coordinated; highly supply-driven rather than end-user oriented; and limited in scope with respect to their impact on agricultural innovation and poverty reduction. The Panel’s stakeholders’ survey to a large extent confirmed the findings and conclusions of these previous reviews. Sixty-three percent of all respondents to the survey rated the partnerships as important, but only 10 percent rated such partnerships as effective. Only 12 percent of Board chairs and Centers’ management (executives) thought that Centers’ partnerships with private sector are effective (Figure 11.10.1).

**Figure 11.10.1: Importance and Effectiveness of Partnerships with the Private Sector**

From the Panel’s telephone interviews with Center directors and senior management, the main reasons given for limited and weak partnerships with the private sector included: (a) that it is difficult for Centers to secure funding for partnerships with the private sector; (b) most donors are hesitant to fund Center linkages with private companies; (c) concern in some quarters (including Center board members) that partnerships with the private sector could divert the CGIAR away from its core business of producing the core components of international public goods, (d) fear of NGO opposition producing adverse publicity in the
international press, resulting in loss of reputation; (d) weak CGIAR and Center capacities to manage intellectual property rights of private companies as well as related technology licensing agreements; and (e) political correctness driven by a lack of resolve.

Whatever the relative weights of the above factors, they have clearly impeded CGIAR action on the critical issue of IPR. Little progress has been made in the full decade since the Third System Review recommendation for highest priority attention the development of clear policy on IPR and investment in system-wide capacity to manage all aspects of IPR pertaining to agriculture. Some interviewees, including serving Directors-General, pointed to a continuing tendency to restrain from partnering with the private sector on the grounds that IPR issues are complex, unclear and divisive. Yet many organizations whose mandates are poverty-reduction and the production and delivery of international public goods have resolved these issues, including the World Health Organization, the Global Alliance for Vaccines and Immunization, and the African Agricultural Technology Foundation.

**What Should the CGIAR Do?**

Thirteen years have passed since the Lucerne summit concluded that the future relevance and effectiveness of the CGIAR required that it establish significant, durable, and sustainable partnerships with the private sector. The evidence indicates that, while some gains have been made and efforts are continuing, the results to date have been very limited.

A significant obstacle to closer linkages between the CGIAR and the private sector is continuing opposition from some quarters as a matter of moral principle. Some NGOs are convinced that large private sector corporations are interested in public-private partnerships in developing countries merely as a means to opening regulatory doors to their transgenic products. In this regard, IFPRI cites Raymond Offenheiser, president of OXFAM America: “What is the agenda driving the philanthropic intent? Is it a real concern for the welfare of the poor? Or is it about market share and share value? We understand that for corporations, it is difficult to disentangle these two sets of goals, and market share often dominates. Corporate foundations are not profit centers, and funding is cut when share value declines. We have lived this reality before so we are wary.”57 A similar assessment provided by one of the leading observers of the CGIAR and one of the most thoughtful of CSOs is summarized in Box 11.10.1.

**Box 11.10.1: A Leading CSO Assessment**

| The world’s largest seed and agrochemical corporations are stockpiling hundreds of monopoly patents on genes in plants that the companies will market as crops genetically engineered to withstand environmental stresses such as drought, heat, cold, floods, saline soils, and more. BASF, Monsanto, Bayer, Syngenta, Dupont and biotech partners have filed 532 patent documents (a total of 55 patent families) on so-called “climate ready” genes at patent offices around the world. In the face of climate chaos and a deepening world food crisis, the Gene Giants are gearing up for a PR offensive to re-brand themselves as climate saviors. The focus on so-called climate-ready genes is a golden |
These are concerns the CGIAR needs to take seriously, but it also needs to address misconceptions with clarity and firmness. The reality is that the CGIAR probably cannot serve as a global 21st century actor in the interests of poverty reduction and food security unless it establishes effective linkages to the private sector. This is because private companies have become a major source of innovations in agricultural research. Their focus is mainly on developed country markets, but the new technologies are required equally for the crops poor people and countries rely on for genetic traits like drought and insect resistance and nutritional improvement. New technologies are urgently required to address the agricultural consequences of climate change, water loss and population pressures. The scientific advances needed for these new technologies will be relevant and essential for the food crops of the global value chain and those of poor and vulnerable farmers.

11.11 Global Forum on Agricultural Research

In October 1996, stakeholders of agricultural research for development, along with a group of donors and four facilitating agencies (FAO, IFAD, the CGIAR, and the World Bank) formally established the Global Forum on Agricultural Research (GFAR). GFAR is a multi-stakeholder forum for dialogue and action on issues in agricultural research for development, and it aims to promote partnerships among these stakeholders. Included among GFAR stakeholders are NARS from the North and the South, the CGIAR and its research Centers, non-CGIAR international agricultural research Centers, farmers’ organizations, NGOs, the private sector, and donor and development agencies.\(^5^9\) GFAR’s mission is to:

\[
\text{Mobilize and support the scientific community and all other stakeholders involved in agricultural research and innovation systems for development, in their efforts to alleviate poverty, increase food security and promote sustainable utilization of natural resources.}\(^6^0\)
\]

Initially, the World Bank hosted the GFAR Secretariat, and the FAO hosted a complementary NARS Secretariat. In 2000, the two secretariats merged, with the unified GFAR Secretariat based at FAO.\(^6^1\) The CGIAR was catalytic in the creation of GFAR and has accorded it a role in its governing structure (a non-rotating seat on the Executive Council.

The Third System Review of the CGIAR recognized the potential of GFAR in enhancing the CGIAR’s own work and partnerships, and recommended that:

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\(^{58}\) opportunity to push genetically engineered crops as a silver bullet solution to climate change. But patented techno-fix seeds will not provide the adaptation strategies that small farmers need to cope with climate change. These proprietary technologies will ultimately concentrate corporate power, drive up costs, inhibit independent research, and further undermine the rights of farmers to save and exchange seeds.\(^5^8\)
Independent Review of the CGIAR System

The CGIAR should support the convening of a Global Forum every three years, confined to a general meeting on future global agricultural research issues and involving all major stakeholders. The CGIAR should monitor GFAR’s development and viability, as well as the implications of GFAR with respect to the work of the Centers.62

At that time, GFAR was a fairly new and unproven initiative. Eight years later, in GFAR’s own second external review, completed in 2006, reviewers commented on GFAR’s successes:

Thanks to the activities undertaken within the framework of GFAR, there is a greater acknowledgement of the relevance of a regional and global approach to research. The establishment of regional and sub-regional fora is particularly effective and notable in the Southern regions. There is also a significant increase in inter-regional exchanges and networking. The Global Partnership Programs (GPP) and the DURAS program are unique, pioneering, relevant, and with initial successes. The GFAR information and communication management activities are groundbreaking and also highly valued.63

The reviewers also noted that there is more work to be done to improve the functioning of GFAR:

“[T]he overall visibility of GFAR in the global community is quite low, and we recommend that more attention be given to the presentation of its goals, initiatives and accomplishments: regional fora, interregional collaboration, GPPs, ICM activities, etc. GFAR Secretariat must also greatly improve its presence in global and regional events where key ARD decisions and strategies are arrived at, though it is to be noted that this will only happen if there is a right mix and right number of professionals in the Secretariat and on the GFAR Steering and Program Committee.”

Where the CGIAR is concerned, GFAR’s reviewers suggested that ties between GFAR and the CGIAR have weakened since the GFAR Secretariat moved out of the World Bank in 2000 and since the CGIAR stopped financially supporting GFAR in 2003. GFAR representatives noted to this Panel that CGIAR leaders and managers do not often attend their meetings.64 Moreover, some in GFAR feel that the CGIAR tends to view GFAR as part of the CGIAR, rather than the CGIAR being part of the broader community of stakeholders represented by GFAR.

To remedy this, the reviewers recommended that:

Collaboration between GFAR, the CGIAR, and the World Bank should be enhanced. This could be done through: (1) active membership of the CGIAR and the World Bank in the DSG and resumption of their provision of financial resources; (2) expanding the involvement of GFAR in the governance of the CGIAR system with a stronger representation of regional fora in the Centers Boards; (3) active participation in Science Council consultation on priority setting and discussion of centers strategic plans; (4) active engagement of the new Chair of GFAR in the CGIAR
Executive Council and (5) establishment of a task force of eminent people with connections in the WB who still value GFAR and its future potentials. This task force would be targeted to enhance links between GFAR, the WB, and CGIAR.65

Despite GFAR’s weaknesses, which are widely acknowledged, including by GFAR, it continues to be an obvious choice to facilitate the interaction among actors involved in agricultural research for development. Working Group 2 of the CGIAR’s Facilitated Change Management Process also comes to this conclusion. It suggests that the CGIAR needs stakeholder consultation in “defining the general orientation and demand drivers at the system level… WG2 considers GFAR to be the most appropriate institutional mechanism to organize this process.”66 Working Group 2 goes on to say that, for a number of reasons, GFAR has not been able to carry out this function effectively up to now, and a strengthened GFAR is required, based on the active support and participation of the CGIAR and other partners.

This Panel concurs with WG2 that GFAR has a central role to play in facilitating CGIAR engagement with the breadth of stakeholders involved in agricultural research for development. To this end, the Panel also agrees that the CGIAR must support the strengthening of GFAR.

11.12 Multilateral Partnerships

The CGIAR Co-Sponsors

The main institutions that make up the international pubic architecture for agricultural development are the Food and Agriculture Organization (FAO), World Food Program (WFP), the International Fund for Agriculture and Development (IFAD), and the World Bank and the Regional Banks. FAO, IFAD and the World Bank are “co-sponsors” of the CGIAR. The United Nations Development Program (UNDP) is also a co-sponsor.

According to the Charter, the co-sponsors “provide the CGIAR with continuity and strengthen the international character of the CGIAR System to serve as an informal policy advisory group. [They] … meet periodically face-to-face, with one of its members serving as chair, or in virtual mode. [The Co-sponsors are also] … encouraged to fulfil the same financial obligations as other members.”67 Whatever the wording of the Charter, however, the CGIAR co-sponsors do not function as a group or in any formal, coordinated manner. They function individually and do not act in consort to align strategies with the CGIAR.

This section takes note of this reality and concludes that critical opportunities for strategic alignment of the larger architecture for international agricultural development are being lost. The approaches to reforms now taking place in all co-sponsor organizations are largely on an institution-by-institution basis. The reform of the CGIAR is an opportunity to
reconsider the CGIAR in a system of mutual support with the global players. This will require support for system-wide reform rather than reliance on individual institutional reforms now underway at the WFP, FAO, IFAD and the CGIAR.

Table 11.12.1: Financial Contributions of Co-Sponsors (US$ million)

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<td>World Bank</td>
<td>30.0</td>
<td>34.3</td>
<td>50.0</td>
<td>42.5</td>
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<td>IFAD</td>
<td>0.25</td>
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<td>1.26</td>
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<td>FAO</td>
<td>In Kind</td>
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<tr>
<td>UNDP</td>
<td>8.66</td>
<td>6.33</td>
<td>13.17</td>
<td>3.2</td>
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Given its especially central role in the work of the CGIAR, Section 7.3 deals separately with the World Bank partnership. The FAO, IFAD, and UNDP are discussed below.

**Partnership with the FAO**

In financial terms, the CGIAR budget is slightly larger than that of FAO. The main global level partnership between the organizations is within the convention of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) which assigns to the CGIAR responsibility for the management of the global genebank collection. The 2007 Independent External Evaluation (IEE) of the FAO reported generally positive relationships between the CGIAR and FAO in forestry, fisheries, livestock, and policy, but noted that almost all of these were of an ad hoc character. In other areas such as food crops, plant improvement, and plant protection, relationships were limited and declining.

The IEE conducted telephone interviews with 14 of 15 Center directors and a wide cross section of FAO professional staff. The results pointed to major concerns about partnership weaknesses and lost opportunities for effective collaboration. The evaluation described structural barriers that included an absence of corporate strategy on either side for planning, implementing, and evaluating the interactions that do take place and the absence of an entry point to build partnerships. The IEE also reported that:

“The views of FAO and CGIAR technical staff indicate clear, continuing and significant tensions. IEE interviews with CGIAR senior staff found that they believed that there is an FAO ‘attitude’ problem, which seems to suggest an FAO desire to dominate the relationship and to treat the CGIAR centers as contractors, rather than as real partners. On the other hand, FAO staff believe that the centers… duplicate and… impinge on the (FAO’s) mandate. Moreover … the more effective communication strategies (of the CGIAR) is resented as overshadowing FAO’s work in the public eye.”

The Panel’s interviews with senior staff at FAO headquarters and in the field confirmed a desire to improve the relationship with the CGIAR as a system, an appreciation for the CGIAR knowledge resources, and optimism for the potential to leverage each other’s...
capacity. They pointed to the current food price crisis as needing an integrated, long-term response from international organizations, but lamented that the platform for engaging on the global issues facing food security in all its forms was weak. FAO staff underlined that FAO-CGIAR collaboration was important and that a new, integrated global architecture that could tackle and resolve the big challenges facing humanity was necessary to garner political support. They also underscored that it would be only through systemic approaches that technology and policy could be brought together effectively, thereby enabling the system to help countries make sound policy choices. The general view expressed was that there were complementary comparative advantages: FAO has convening and normative strengths while the CGIAR has agricultural R&D strengths.

But FAO interviews also underscored that the barriers to institutional collaboration are significant. The CGIAR is perceived as being driven by funding exigencies, but the largest barriers are perceived to be: (i) the lack of an entry point or decision-making Center for inter-institutional strategy design and priority setting; and (ii) the fragmented character of the CGIAR which makes cooperation on specific global initiatives costly.

In summary, the barriers to achieving a strategic global partnership between the FAO and the CGIAR are considerable. There is, however, recognition that these need to be surmounted if the international agricultural architecture is to respond with adequacy to new challenges of food security. The main message conveyed to the Panel by the FAO is that it would wish to establish a strategic collaboration on programs that address large scale global issues and at the regional level to create systemic change and apply research results to setting the policy agenda. Taking forward the vision of the individuals interviewed will require strong and supportive leadership from the political authorizing environment in Rome and from donors and countries who constitute the CGIAR to create effective institutional bridges between the CGIAR and its affiliated Centers and the FAO.

**Partnership with IFAD**

In 2001, IFAD was invited by the then CGIAR Chair to become a co-sponsor of the CGIAR. The principal reason was the common CGIAR-IFAD aim, specifically IFAD’s mission to enable poor rural people to overcome poverty in the context that most of the rural poor depend directly or indirectly on agriculture. IFAD and CG have convened a number of policy related events. For example the joint round table at WSSD 2002; IFAD’s Governing Council 2006 which featured a round table on the role of agricultural research in rural development innovations and which included three Centers’ DGs as participants). IFAD co-chairs the current Change Steering Team (CST) of the change management process, and participates in the associated WG4.

When the Alliance of CGIAR Centers was formed in 2005, IFAD agreed to house the Alliance in its Rome offices. Partnerships between the two organizations have historically been mainly project-based. Over the past decade, IFAD has awarded between $4 and $10.6
million annually to proposals from individual Centers. Some of this has been supply-led, beginning with a concept note from a Center. On other occasions, it has been demand-driven, when an individual IFAD Country Program Manager contacts a Center for technical and professional assistance.

IFAD’s Independent External Evaluation of 2005 found innovation essential to the work of IFAD, but found IFAD seriously deficient in all areas of innovation. That evaluation made no mention of the CGIAR, perhaps reflecting the tenuous nature of the relationship. Since that evaluation, IFAD has been undergoing a comprehensive program of institutional renewal. It has promulgated a new strategic framework, new innovation and knowledge management strategies, and a results-based management system with a range of new planning and programming instruments. The innovation strategy points to an R&D partnership with the CGIAR as “vital for sustainable innovation” and notes that “particular efforts are needed to ensure that the research findings of CGIAR members increasingly contribute to IFAD-supported projects.”

The knowledge management strategy acknowledges the extent of past weaknesses and failures. It states: “Due to the short term project approach adopted, most of the partnerships with these agencies (including the CGIAR) have not been institutionalized and lack strategic focus and sustainability. Activities related to knowledge sharing and learning and to fostering innovation are insufficiently emphasized, and the linkages … need to be strengthened and aligned with strategic thematic priorities.” It also indicates IFAD’s intention to pursue “four quite different strategic partnerships in knowledge management with selected partners: one CGIAR Center (the International Food Policy Research Institute), one development agency (the African Development Bank or the World Bank), a network of stakeholder institutions (for example, NGOs, farmers’ organizations, rural microfinance institutions) and tripartite collaboration with FAO and WFP. Designed as long-term collaborative frameworks, these partnerships will harness substantial human and financial resources from IFAD … and from strategic partners…. Research activities … will be jointly planned.”

These initiatives remain in the planning stage 18 months after their announcement. This is not surprising, given requirements for detailed planning, negotiation of mutual obligations, establishment of a results framework, performance management and measurement system. What is noteworthy is IFAD’s analysis of its shortcomings and weaknesses, and of the failures of the international agriculture system. Also noteworthy is IFAD’s explicit recognition that new kinds of durable partnerships are essential if it is to achieve its mission, and that this requires finding R&D synergies with the CGIAR.

The Panel’s interviews with IFAD repeated the themes of the need for the system to position itself more clearly as a system. With regard to the CGIAR, IFAD’s view is that a uniform architecture—one person who represents it and a performance reporting system firmly in place—would make it easier for IFAD to contribute funds. IFAD views as the CGIAR’s comparative advantage its multidisciplinary research capabilities and its ability
to cross-fertilize knowledge across disciplines and geography. It believes that the best of international science will need to be brought to bear on how poor farmers can cope with the effects of climate change, and that the CGIAR should be a major actor in this regard.

IFAD also expressed concerns. These include: (i) a need for the CGIAR to clarify its position relative to ARIs and NARs, and (ii) a need to establish a supportive strategic relationship with GFAR, which was set up to link the CGIAR to the NARS. A significant portion of the IFAD funding goes through the NARS.

IFAD claimed that it is one of the few institutions willing to pay full cost for overhead, but it expressed concern over the lack of consistency in such rates, ranging from ICARDA at 25 percent to CIAT at 12 percent.

**Partnership with UNDP**

Historically, the UNDP had a financing relationship with the CGIAR and contributed annually to the CGIAR as a whole. This relationship essentially ended a decade ago. UNDP financing to the CGIAR dropped from $13.2 million in 1994 to $0.8 million in 2007. There are currently no indications of any significant partnership arrangements or interactions between the UNDP and the CGIAR as a System. However, at the Center level there continues to be collaboration. For example, several Centers contributed to the Millenium Ecosystem Assessment, CIFOR has been involved in the Reduced Emissions for Deforestation initiative, and at the regional level there have been other joint initiatives. In Nairobi, for example, the UNDP is engaged in work related to climate change with ICRAF and on pastoralism with ILRI.

Since UNDP’s role as central funder of the United Nations Specialized Agencies disappeared in the 1980s, program relationships between UNDP and FAO have also all but disappeared. In the 1990s this trend continued as UNDP phased out of support for and partnerships in sustainable agriculture and forestry programs in order to reduce any potential overlaps with FAO and the World Bank. Also, the UNDP now has fewer technical staff to advise on CGIAR boards or to participate in other ways with the CGIAR.

Given these factors, there are questions within the UNDP about the future of its CGIAR relationship. The current arrangement of co-sponsor would seem to hold few residual merits.

In interviews with UNDP staff familiar with the CGIAR or the Centers, staff noted that there were still many opportunities for the CGIAR Centers, especially CIFOR and ICRAF, to work with the UNDP on climate change through funding mechanisms now available. One strong proponent of UNDP maintaining its sponsor role stressed that the UNDP is the world’s largest deliver of technical assistance for development. The UNDP is “centrally important organizations in the UN system in that it has direct access to policy-making processes.”
But it lacks its own technical capacity. The CGIAR is a scientific and technical leader for poverty alleviation and hunger reduction, but is divorced from policy processes.” This indicates possibilities for greater complementarity, although the Panel was clearly advised that this could happen only through intervention “from the top,” for as one UNDP interviewee stated: … “The main problem that I have had in defining this possible new partnership between the CGIAR and UNDP is that the CGIAR is very difficult to engage with in policy decisions. The Centers are independent and the Secretariat can only coordinate the system and not speak for all of the Centers. When you add on the baffling layers of committees of Directors General, Deputy Directors General, Finance Directors … and take into consideration the gatekeeper role of the Science Council, the system becomes baffling and holding a policy discussion is extremely difficult.”

11.13 Partnerships: Conclusions, Lessons Learned and Recommendations

As part of an international public goods system, the CGIAR needs to be linked to other organizations; otherwise, delivery and application of the goods it produces will be hampered. It is in this sense that partnerships are essential to the effectiveness and relevance of the CGIAR. Partnerships, however, have become a central mantra of international donor agencies and there is incontrovertible evidence of development partnerships that are cost-ineffective and that add measurably to transaction costs. The CGIAR needs partnerships but it also needs to avoid the costly and wasteful pitfalls that these can entail.

At the Center level, there is evidence of an important range of partnerships with measurable added value. On the whole, however, this Panel finds that the CGIAR and its Centers are falling far short of the strategic potential of partnerships. At both the System and Center levels, there is need for partnership arrangements that integrate the actions of different actors around major objectives with specified, measurable outcomes.

With regard to the Centers, the Panel has found that, while partnerships are being actively pursued, this is almost completely on an ad hoc basis. The most recent EPMRs for all 15 CGIAR Centers refer consistently to the Centers’ lack of appropriate tools to engage in and manage partnerships, beginning with specification of what kinds of partnerships are required for what purposes. The result is a host of ad hoc partnership arrangements that lack strategic purpose and management. Part of the problem, of course, is financial limitations. But the other—and larger—part is the absence partnerships as part of ambitious strategies for the production and delivery of international public goods.

This Panel’s stakeholder survey confirms these conclusions, as do EPMR reviews and the Stakeholder Survey of 2006. The EPMRs point frequently to partnerships that provide limited value to the Centers or involve work more appropriately done by others. Interviews with NARS point in general to the need for new approaches that differentiate
more sharply between advanced and less advanced NARS and that accord more direct and explicit recognition of the achievements of NARS when they partner with Centers. There is also a major problem that needs to be addressed: of Centers being viewed by some NARS as competitors for financing rather than as partners in development.

At the System level, the partnerships committees with membership of the Executive Council were intended to serve as the basic architecture for building and strengthening partnerships. In the case of NGOs, this failed very badly and the initiative was suspended. Renewed consultation efforts have now been launched. In the case of the private sector, efforts continue, but concrete results have been few and disappointing. Global level partnerships are severely hampered by the absence of an empowered entry point into the CGIAR as a system. This is a fundamental structural problem of the System as it is currently designed.

Thus, in spite of desire and significant effort at both the Center and System levels to establish strong and durable partnerships to advance CGIAR’s mission, the lack of strategy, tools, and mechanisms at all levels make this difficult and elusive.

Examination of the literature on partnerships and specifically that on global partnerships informs us that there is no roadmap or template to successful partnerships. Recent studies, however, do provide a framework of lessons learned and guidelines to consider in seeking truly effective international partnerships. One such study by the Overseas Development Institute (ODI) involves a seven-year (2004-2011) tracking and measurement study of different civil society partnerships. It provides a helpful range of questions to ask when trying to shape new partnerships.74

Perhaps the most extensive study to date on global partnerships and lessons learned from them is the World Bank’s independent evaluation of global partnerships,75 involving a close examination of 26 of the Bank’s global partnership programs, including its partnership with the CGIAR. While the recommendations of the study are directed to the World Bank, the broader lessons learned and their implications apply in equal measure to the CGIAR. The main lessons learned are captured under five headings in the summary of recommendations. These are:

1. **A global strategy is an essential precondition to partnerships.** This must begin with an understanding of alternative sources of supply and a clear determination of comparative advantage. It would need to take full account of changes in the international architecture for the production and delivery of public goods and the comparative advantage of different institutions.

2. **The financing requirements for partnerships need to be tightly linked to programs and to program priorities and the means-end requirements must be presented with clarity.** This is often not done, as is the case with the CGIAR. There is little point in

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program proposals purporting to bring about a production revolution in drought resistant grains or in the sustainable management of a natural resource unless realistic financial means are linked to those ends. This requires identifying underfunded long-term global public-goods programs that benefit the poor and indicating the financing required for their production, delivery, adaptation, and effective use.

3. **Effective management is imperative** and depends on attention to the details of approval, oversight, evaluation, exit/reauthorization criteria, the subsidiarity principle, separating oversight from implementation management, and clarifying roles, responsibilities, and accountabilities.

4. **The application of Universally Accepted Standards of Good Governance.** These standards should accord priority to transparency, results-based management, and independent evaluation; to the need for written agreements and conflict of interest guidelines; to the designation of the evaluation and auditing functions to governing bodies; and to ensuring that the voices of clients are included in shaping and deciding strategies and programs.

5. **Measurement and Evaluation needs to be explicitly negotiated and stipulated, ex ante, as a foundation for partnerships and to establish a schedule of independent evaluations.**

The above five broad summations of lessons learned from World Bank meta assessments of global partnerships are echoed almost exactly in other studies, including further independent evaluation work of the Bank. These furnish, therefore, a “best practices” framework against which the CGIAR may address the many deficiencies in its current partnership arrangements.

The starting point, as indicated in the World Bank study referred to above, is the formulation of a strategic framework with partnership, where appropriate, as one key component. This does not mean that a partnership contract is essential for each partnership. It does mean, however, that partnerships work well only when they have clear purpose and are situated within explicit strategic results frameworks. Among the lessons learned is that partnership strategies do not function well on their own because they establish partnerships as ends in themselves. Such strategies need to be carefully constructed as a means to ends that are worked out collectively and that establish a “coincidence of objectives.” This is not something that can be accomplished by establishing a dedicated committee or an individual responsibility. The litmus test is in acting on the basis of comparative advantage and whether value is added to outcomes.

The problem for the CGIAR is that its comparative advantage has become opaque. At all levels—global, regional, national, and local—there are today many alternative sources of supply to the goods and services that the CGIAR once provided on a *sui generis* basis.
At the recent food summit, French President Nicolas Sarkozy called for an urgent effort to bring alignment to the international agricultural architecture. This is the time for the CGIAR to define its comparative advantage, formulate clearly what it could contribute to a global effort in terms of time-bound targets, and indicate the partnership division of labor requirements for the production, distribution, adaptation, and application of these as international public goods.

At the regional level, the new efforts underway to strengthen regional R&D capacities in agriculture, particularly in Africa where these are most urgently required, offer new potential for partnership. It also requires new strategic understandings on specialization, subsidiarity, and division of labor. As regional bodies such as ASEReca, CORAF, FARA, and SADEC in Africa and APARRI in Asia expand and strengthen, the role of the CGIAR will doubtless need to change. This should be envisaged, planned, and integrated into specific partnership agreements with measurable milestones. Here again, the need is for a strategic framework with partnerships as an integral component.

At the national level, the neglect of capacity and institution building of the past two decades will need to be reversed if a global effort is to succeed and be sustained. The questions here are: (i) to what extent should this be a continuing role for the CGIAR? And (ii) to what extent is this now best done by others (i.e., the regional bodies or other international organizations, or the many strong professional organizations of civil society)? However these questions are answered, any attempt to revitalize the CGIAR for greater development effectiveness will prove to be another lost opportunity if the international community of donors and the governments of developing countries do not reignite the kind of vision for the CGIAR-NARS-ARIs partnership that made the green revolution of the 1970s possible. This will necessitate new and determined attention to and financing for capacity and institution building, especially for Africa. Without this, the current attention of world leaders on issues of food production and food security for the poor and vulnerable will come to very little.

**Recommendations**

The Panel recommends, as the highest priority for partnership development in the CGIAR, that partnerships be approached as integral components of a medium term strategy and results framework. The current ad hoc, short-term approaches are unsustainable. As part of this, results based relationships and the requirements for strategic partnerships need to be made explicit. The absence of clarity on this has long been a limiting factor on the effectiveness of the CGIAR and has limited its value as a provider of international public goods. It has also created problems of unfunded mandates for national governments, NARS, and NGOs.
The Panel recommends that the CGIAR donor community and the governments of developing countries approach the needs of Africa systemically by assuring adequate provision for institution and capacity building in a CGIAR-NARS-ARIS partnership.

The Panel also recommends the establishment of a separate financing facility as a contingency fund for partnership opportunities not envisaged in the strategic framework. This would be available, for example, to meet the short-term financing needs of a NARS partnership to test a promising new technology development or to gain rapid and timely access to scientific equipment available only in an ARI.

NGOs: The formal system-level relationship between NGOs and the CGIAR is of quite recent origin. The initial arrangement designed to bring about broad and sustainable collaboration was via a partnership committee mechanism. This failed badly and, rather than improving and deepening collaboration, generated conflict and disappointment. The CGIAR has clearly made determined efforts to learn from the initial failed attempt and has put into place a new policy instrument and a promising approach. This reflects recognition of the importance of NGOs as development actors and the potential for development outcomes, and impacts whether effective partnerships between them and the CGIAR can be forged.

The Panel recommends that the CGIAR continue to apply its new policy for building partnerships with NGOs. The systematic nature and concrete steps proposed in the policy should be applied and tested over time. The Panel accords particular importance in this regard to conducting regular three-year evaluations of CGIAR-NGO partnerships. At least the first such evaluation should be commissioned on a fully independent basis.

The Private Sector: There is need for a ‘meeting of minds’ on why partnerships with the private sector are critical for the CGIAR. The Panel recommends a high-level dialogue (such as the Keystone Dialogue and Crucible Group processes) with Chatham House rules among representatives of CSOs, private sector, chairs of Centers’ boards and independent experts on IPR. A multi-stakeholder dialogue can be used to achieve greater clarity of the nexus between IPR and public agricultural research.

Most critically, the CGIAR must resolve issues related to its policy of making research results publicly available. The interests of the CGIAR and developing countries must be respected, along with the interests of public-sector companies. Resolving these issues has been pending in the CGIAR for over a decade. The Panel recommends this issue now be accorded urgent and decisive attention with regard to:

- Rights and freedoms of the CGIAR Centers to operate in the use, application, and possibly commercialization (probably through partners) of intellectual property and resulting products in developing countries;
• Rights for industry to use and exclusively commercialize intellectual property and resulting products in developed countries, probably with a royalty stream to the CGIAR and developing countries; and
• Market/crop segmentation, which could be useful for identifying one or another party’s rights in developing countries where public-sector companies also express interest in certain markets.

CGIAR Centers should develop a common strategy to protect their internally generated intellectual property and know-how by filing their own patent applications. This would allow them to establish a patent portfolio that could then be used as an asset in negotiating access to IPR owned by private-sector companies. Even though it would take years for a reasonable positioning to be achieved, it is an option worth looking into and assessing in terms of opportunities and (cost-related) risks. Of course, it would then be up to the CG to give royalty-free licenses to their institutions, their addressees, and developing countries.

**Functional Guidance**

As the World Bank and many other careful reviews of partnerships concluded, successful partnerships depend on working out in advance clear understandings, and on establishing a “coincidence of objectives”.

Accordingly, the Panel suggests that all major CGIAR partnerships in the future should have the following features:
• Written and mutually endorsed understanding of the “coincidence of objectives”;
• Stipulation and agreement on mutual expectations and the mechanisms for dispute resolution;
• Specification of “end points, milestones and a framework for ongoing evaluation”;
• Inclusion of exit strategies and the conditions for their enactment; and
• Where finances are part of a partnership, advance understandings on resource allocations, accountability, and management standards.

An independent and comprehensive case-study review should be conducted on CGIAR-partnerships with the private sector. At the moment there is little documentation on the nature of partnerships with the private sector, or of which ones work, and why. The comprehensive review that the Panel recommends would be used by the Centers, the CGIAR and the PSC to address the large untapped potential of collaboration with the private sector.

The CGIAR and Centers’ DGs and board members need to provide leadership to debunk concerns that the interest of private sector collaboration with the CGIAR is to divert Centers’ attention from the production of international public goods. **The CGIAR needs to gather independent empirical evidence of the impact of IPR on public agricultural**
research. Centers’ decisions on and strategies for partnerships with private sector should not be misinformed and based on fear of anti-IPR activists’ campaigns.
Notes

2 This Panel reviewed partnerships aspects of the most recent EPMRs for each of the 15 Centers.
7 The questionnaire provided three options, of which respondents could choose more than one.
19 Ibid, page iii.
21 Ibid., page 8.
23 The report notes that “More than 90 percent of these biological control benefits are attributed to control of the cassava mealybug. Close to 20 percent of total benefits result from the genetic improvement of crops, and less than 1 percent from all other activities.”

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29 Ibid, page 16.
32 Ibid, page 73.
35 Anon. (2002) Farmers urge CGIAR NGO Committee members to resign, lead walk out in annual general meeting, Manila, Philippines, 30 October, mimeo.
38 Ibid.
40 Ibid, Page 5.
42 Supported by the governments of Norway, United Kingdom and United States.
44 http://www.cgiar.org/who/structure/committees/partnership/ps-tor.html
48 See http://www.hlspinstitute.org/aideffectiveness/global/
52 Ibid, page 17.
53 See Science Council (2006), CGIAR Center Collaboration: Report of a Survey. Washington: Science Council Secretariat, CGIAR. It is important to note that 11 of the 15 Centers responded to the survey questionnaire.
54 Ibid, page 27.
56 The Centers were CIMMYT, (CIP) and ICRISAT.
59 Ibid.
60 www.egfar.org
64 The CGIAR Director and others did attend the July 2008 GFAR Steering Committee meeting in Montevideo, Uruguay.
67 The Charter of the CGIAR, page 10.
CHAPTER 12
MANAGING FOR RESULTS

12.1 Setting Priorities

12.1.1 Development of the System Priorities

Until the Science Council was established, research priority assessment in the CGIAR was aimed at helping to distribute financial resources across research areas. Substantial unrestricted funding was distributed in this way across plant breeding research activities on different commodities at different Centers. Because these activities were of a similar nature, their potential impact could be compared through productivity and congruence analysis. In the 1990s, unrestricted funding declined, and with it the need for an allocation mechanism based on priority setting. Further, the entry of new Centers greatly diversified the research profile of the CGIAR, making it more difficult to compare and prioritize research activities. Priority setting became more of a process to rationalize the scope of CGIAR research. The last priority setting exercise was completed in 1997, and by 2002 TAC noted that without a current set of system-wide priorities “it was becoming increasingly difficult to evaluate the CGIAR Research Agenda.”

Consequently, a Standing Panel on Priorities and Strategies (SCOPAS) was set up in early 2003 under the interim Science Council to develop new System Priorities. The objectives were to:

- Focus CGIAR research better on its poverty reduction mission
- Reduce the “dispersion” of research projects in the CGIAR and the drift towards development projects by re-focusing on strategic research and delivery of international public goods
- Mobilize research across the Centers through inter-Center collaboration
- Improve partnerships and attract new research partnerships
- Improve accountability and help donors allocate resources.

In addition to addressing the need for a set of System priorities against which to evaluate the CGIAR’s changing research profile, these objectives emphasized elements from the CGIAR reform process (2001) relating to a move to programmatic research, an opening of the CGIAR, and a strong focus on strategic research and IPGs, which the Science Council was later to champion.

The process of developing System Priorities was led internally, with some external consultation. It involved nine approaches, clustered in three different categories. “Inductive” approaches drew views from regional and global groups comprising...
stakeholders from NARS, universities, CSOs, and the CGIAR Centers, and focused on which areas of agricultural research the CGIAR should pursue in the future that would be aligned with current areas of activity. “Deductive” approaches involved analysis of future trends and needs in agricultural development, and opportunities for research contributing to poverty reduction. “Historical” approaches involved analysis of the evolution of research activity and resource allocation within the CGIAR and related organizations. Results from these different approaches were combined and subjected to three criteria in order to arrive at a set of priorities:

- Expected impact of the research on the major CGIAR goals (poverty alleviation, food security and nutrition, and sustainable management of natural resources) considering the expected likelihood of success and expected impact if successful;
- Production of international public goods; and
- Alternative sources of supply and CGIAR comparative advantage in the conduct of the research.

When the new Science Council took over the last stages of this process, it focused added effort on development of a clear plan for strategic science that would deliver IPGs. Through a series of intensive workshops with research scientists from both the CGIAR Centers and outside, the Council drew on work already done to fashion a set of priority research activities. The broad representation of Center scientists in this penultimate decision making process contributed to an output that resembled the current research portfolio of the Centers. Science Council consulted with Centers on these draft priorities and presented them to ExCo and the CGIAR AGM in 2005.

### 12.1.2 The System Priorities

The priority setting exercise produced five System Priorities, each with four sub-Priorities, for a total of twenty (See Table 12.1.1). These were released with detailed descriptions of each priority, as well as descriptions of their development, relevance to MDGs, and plans for implementation.³

The System Priorities are presented in Table 12.1.1. This Table shows, for later reference, some early ideas on the association of System Priorities with particular Centers, with System budgets and with existing inter-Center programs (named) or new System-Wide Programs (SWPs) or Challenge Programs (CPs) derived from Science Council guidelines based on the 2007-2009 MTPs.⁴
Table 12.1.1. The System Priorities (Science Council 2005)
(see note below table)

<table>
<thead>
<tr>
<th>System Priorities and sub-Priorities</th>
<th>Centers 2006</th>
<th>CPs 2006</th>
<th>% Systems budget 2007</th>
<th>Inter-Center Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Area 1: Sustaining biodiversity for current and future generations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 1A: Conservation and characterization of staple crops</td>
<td>10</td>
<td>1</td>
<td>7</td>
<td>SGRP</td>
</tr>
<tr>
<td>Priority 1B: Promoting conservation and characterization of under-utilized plant genetic resources to increase the income of the poor</td>
<td>12</td>
<td></td>
<td>3</td>
<td>SGRP</td>
</tr>
<tr>
<td>Priority 1C: Conservation of indigenous livestock</td>
<td>5</td>
<td></td>
<td>1</td>
<td>SGRP, new SWP</td>
</tr>
<tr>
<td>Priority 1D: Conservation of aquatic animal genetic resources</td>
<td>4</td>
<td></td>
<td>1</td>
<td>SGRP</td>
</tr>
<tr>
<td>Priority Area 2: Producing more and better food at lower cost through genetic improvements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 2A: Maintaining and enhancing yields and yield potential of food staples</td>
<td>12</td>
<td>2</td>
<td>8</td>
<td>new SWP</td>
</tr>
<tr>
<td>Priority 2B: Tolerance to selected abiotic stresses</td>
<td>10</td>
<td>2</td>
<td>7</td>
<td>Generation CP</td>
</tr>
<tr>
<td>Priority 2C: Enhancing nutritional quality and safety</td>
<td>12</td>
<td>1</td>
<td>7</td>
<td>Harvest Plus CP</td>
</tr>
<tr>
<td>Priority 2D: Genetic enhancement of selected species to increase income generation by the poor</td>
<td>9</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Priority Area 3: Reducing rural poverty through agricultural diversification and emerging opportunities for high-value commodities and products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 3A: Increasing income from fruit and vegetables</td>
<td>11</td>
<td>1</td>
<td>3</td>
<td>new CP</td>
</tr>
<tr>
<td>Priority 3B: Income increases from livestock</td>
<td>10</td>
<td>1</td>
<td>4</td>
<td>SWLP</td>
</tr>
<tr>
<td>Priority 3C: Enhancing income through increased productivity of fisheries and aquaculture</td>
<td>5</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Priority 3D: Sustainable income generation from forests and trees</td>
<td>6</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Priority Area 4: Poverty alleviation and sustainable management of water, land and forest resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 4A: Integrated land, water and forest management at landscape level</td>
<td>14</td>
<td>2</td>
<td>8</td>
<td>INRM, CAPRI, CSI, new SWP</td>
</tr>
<tr>
<td>Priority 4B: Sustaining and managing aquatic ecosystems for food and livelihoods</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Priority 4C: Improving water productivity</td>
<td>12</td>
<td>3</td>
<td>5</td>
<td>Water &amp;Food CP</td>
</tr>
<tr>
<td>Priority 4D: Sustainable agro-ecological intensification in low- and high-potential areas</td>
<td>14</td>
<td>2</td>
<td>7</td>
<td>new CP</td>
</tr>
<tr>
<td>Priority Area 5: Improving policies and facilitating institutional innovation to support sustainable reduction of poverty and hunger</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 5A: Science and technology policies and institutions</td>
<td>14</td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Priority 5B: Making international and domestic markets work for the poor</td>
<td>15</td>
<td>2</td>
<td>4</td>
<td>new CP</td>
</tr>
</tbody>
</table>
Independent Review of the CGIAR System

<table>
<thead>
<tr>
<th>System Priorities and sub-Priorities</th>
<th>Centers 2006</th>
<th>CPs 2006</th>
<th>% Systems budget 2007</th>
<th>Inter-Center Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority 5C: Rural institutions and their governance</td>
<td>15</td>
<td>2</td>
<td>5</td>
<td>new CP</td>
</tr>
<tr>
<td>Priority 5D: Improving research and development options to reduce rural poverty and vulnerability</td>
<td>14</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Note: Columns show number of Centers and Challenge Programs proposing to contribute to each sub-priority, the total proportion of the System budget for 2007 that this would involve, and proposals by Science Council for their further development through existing inter-Center programs (named) or by new System-Wide Programs (SWPs) or Challenge Programs (CPs). These include the Generation, Water and Food and Harvest Plus CPs, the System-Wide Genetic Resources Program (SGRP), the System-Wide Livestock Initiatives (SWLP), the Integrated Natural Resources Management Group (INRM), the Consortium for Spatial Information (CSI) and the System-wide Program on Collective Action and Property Rights (CAPRI). The total for % Systems budget 2007 is 93% because Centers were expected to have some (up to 20%) expenditure outside the System Priorities.

Each priority has scientific consistency, e.g., research on conservation of genetic resources, be they plant, animal or fish, is included under Priority 1. But there is a great deal of variation among priorities with respect to the scientific disciplines they embrace and the scientific levels at which they operate. For instance, Priority 5 focuses mostly on social science and policy research, while other priorities focus more on natural science research. Priorities 1 and 2 focus on the conservation and improvement of particular plant and animal commodities, while Priority 4 involves research on multi-commodity systems to delivery of sustainable production and ecosystem services. This heterogeneity among Priorities means that some cross-cutting problems can only be addressed by clustering sub-priorities across Priorities. Examples of how this could be done are given in the System Priorities publication for climate change and nutrition and health.

This means that there are two ways to view the Priorities. On the one hand, they can be considered to be 20 specific areas of research delivery by Centers. On the other hand, they can be considered to be a portfolio of competencies from which programs for delivery would be composed. Both were presented in the original System Priority plan, but in subsequent development, the former approach predominated, as exemplified in Framework Plans.

The System Priorities broadly match current CGIAR research activities, with some—mostly minor—changes in research areas. The major addition is of new research on high value products and associated research on increasing market access and income for poor farmers (mostly Priority 3). A few areas of earlier research, such as post-harvest research, have been excluded.

The major change in research activity driven by the System Priorities relates not to research areas but to the nature of research to be conducted. The Science Council proposed

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that 80 percent of each Centers’ research be on priority themes and of a strategic nature, directed at production of core components of IPGs delivery systems. The remaining 20 percent can be outside these priority themes. Science Council recommended that at least half of this 20 percent of research be speculative—strategic research aimed at developing future research areas. However, into this 20 percent must also fall all Center activities that are not strategic research, including applied research to support impact pathways (also referred to as delivery components of the IPG delivery systems.); capacity building (although research on capacity building may be included in the 80 percent); and other Center activities that help research outputs (core components) to achieve impact. The Science Council presumed development partners will pick up outputs and undertake necessary subsequent research for delivery at a regional, national or local level. It acknowledged that this will be easier for “strong NARS” than for “weak NARS,” implying that research in support of weak NARS should be limited to those where partners ensure uptake and impact.

Overall, Science Council presented a set of System Priorities which it believed created three key opportunities: to create a more efficient, system-wide research program in place of 15 separate, Center programs; to “move towards corporate donorship”; and to reinforce the focus on “international public goods research (rather than development) at Centers, and to limit unproductive contract research.”

12.1.3 Implementation of the System Priorities

Science Council developed a plan for implementation of System Priorities by Centers over a three-year period (2006-2008), which had three elements. First, Centers would specify in their 2007-2009 MTPs how they would assign research activity and budgets to particular System Priorities or to other categories of “development, new research and stand-alone training” (i.e., the 20 percent). Second, based on this approach, Framework Plans for each Systems Priority would be developed; these would be strategic documents defining the long-term goal of CGIAR research in a particular area, its scope, and road maps for system-wide implementation. Third, a process would be established in parallel to design a mechanism for funding the System Priorities (see below).

The Science Council summarized the first response of Centers to System Priorities in their MTPs and suggested how these might develop. Some of this summary is shown in Table 13.1.1, including the Centers that contribute to sub-priorities, the total funding associated with these sub-priorities, and where existing and future inter-Center Programs fit in the scheme of System Priorities.

Overall, the Science Council considered the Center’s initial allocations to System Priorities MTPs to be overly broad, lacking focus, and insufficiently differentiated between priority and non-priority research (only 7 percent of total Centers budgets were allocated to the 20
percent) and lacking information on inter-Center links. It therefore addressed these issues through Framework Plans, and suggested, for each of the twenty sub-priorities, how such a plan might be developed between relevant Centers.

Science Council forged a relationship with the Alliance Deputy Executive (ADE), the body of Deputy Directors General responsible for Centers research, by which the ADE would represent the Centers in collective research planning, e.g., for Framework Plans. A Framework Plan for Priority 1A, on promoting conservation and characterization of staple crops, was produced. This was relatively straightforward, as it related to work already coordinated by the System-Wide Genetic Resources Program. Science Council and ADE developed guideline drafts for four more sub-Priorities to assist the Ad Hoc Committee on Funding System Priorities (AHC 2007), and ADE undertook to complete, by end 2007, 14 Framework Plans according to criteria defined with Science Council. Twelve were submitted and peer reviewed, but the Science Council decided that these did not meet the agreed criteria. At ExCo 14 in May 2008, the process of developing Framework Plans was effectively halted with a decision to “map priority areas of research to the strategic objectives identified by the Visioning Working Group of that initiative.”

Clearly, Centers and Science Council have struggled to find a common vision for implementation of System Priorities. Science Council has sought precise definition of work, budgets, and partnerships for each sub-priority. Centers have treated Systems Priorities merely as plans to guide future collaboration and development and have been reluctant to meet Science Council objectives. With this process now stalled, the Science Council target of aligning Center research with System Priorities by 2008 will not be met.

12.1.4 Stakeholder Views on the System Priorities

This review was able to draw on two stakeholder surveys conducted in 2007-2008 that collected views from Members and Centers on the performance of some or all Science Council activities, including the system priorities. The Panel Survey undertook to include Members and Center Board Chairs, Directors General and Deputy Directors General, and is described in Appendix 1. In 2007, Prof. George Rothschild prepared a report for the ExCo Ad Hoc Committee on Funding System Priorities that included interviews with Directors General or Deputy Directors General of all 15 Centers and Directors of three Challenge Programs. The interviews included questions on Science Council and System Priorities. In addition to formal surveys, Panel members held interviews with Board Chairs, Director Generals, donors and ExCo members.

The Panel Survey asked the following questions:

- The Science Council has led an exercise that has defined research priorities for the CGIAR. How important to the CGIAR and Centers was this priority setting exercise?
• Are the priorities as stated likely to be effective as a guide to decision making and resource allocation?

Figure 12.1.1 shows the proportion of a particular stakeholder group surveyed that stated that the System Priority setting was “important or very important,” or likely to be “effective or very effective,” as a guide to decision making and resource allocation. Three groups are included for comparison: Science Council members (N = 19), ExCo and CGIAR Members (76), and Center Board Chairs, DGs and DDGs (42).

Figure 12.1.1: Percentage of Respondents from Three CGIAR Stakeholder Groups who Believe the System Priorities to be Important and Potentially Effective

More than half of present and former Science Council and Science Council Panel members, and ExCo members responded that the priority setting exercise was important. Fewer than half of the Center Board Chairs, Directors General (DGs) and Deputy Directors General (DDGs) held this view. Written comments from all groups on the importance of the System Priorities identified one major concern: that resource allocation was inherently political and would therefore not be influenced by priority setting.

Concerning their effectiveness, no group held a majority view that System Priorities are, at this point, likely to be effective as a guide to decision making or resource allocation. Fewer than 15 percent of respondents from Centers and Center Boards said that they could be potentially effective. In written comments, all groups expressed one dominant concern: that System Priorities were only descriptions of disciplinary competencies of Centers, and did not reflect strategic priorities for delivery of the CGIAR mission. This failure to rank
research on its potential impact on poverty reduction was seen by Centers to be a potential disincentive for donors, and donor comments bore this out. Some observed that prioritizing research according to its poverty impacts would now have to be done at the level of Framework Plans for implementation. Some respondents, particularly from donors and Science Council, stated that priority setting was a young process and needed time to evolve and become more effective. About half of all respondents agreed that the System Priorities should be revised soon, although about 30 percent observed that, whether or not they needed to be changed soon, the process would be too expensive and disruptive.

A survey of Center and Challenge Program Directors in 200710 asked for their general views on the System Priorities, on the value of those priorities in delivering the CGIAR mission, and on the proposed 80/20 split of Center research between prioritized and other research. Most respondents saw the priorities as an attempt to increase donor funding, particularly unrestricted, and some said that it had succeeded in providing a “useful description for donors of the agenda of the entire System.” Most respondents said that System Priorities were too discipline-based and were not based clearly on poverty impact or impact pathways. Other views of the System Priorities were:

- They are too broad and unfocused to be a basis for taking research forward
- They present current activities rather than future challenges
- There is little reference to impact pathways and consideration of Center roles in knowledge brokering, capacity building, up scaling and developing methodologies to help achieve impact
- They do not address cross-sectoral issues well, e.g., agriculture and health
- Capacity building is a key Center activity that should be within the 80 percent of resources allocated to priorities, not outside.

Survey findings were corroborated by interviews with CGIAR DGs, DDGs and Board Chairs, and donors. In a meeting with EAIRD, for instance, the Panel observed that there was a general consensus that System Priorities were only, as one member put it, a “menu of the areas of competence of the CGIAR Centers,” and that they might be of greater interest to donors if there were a good system in place for implementing them.

12.1.5 Performance of the System Priorities

The Panel will examine performance of the System Priorities in terms of three aspects of their original objectives:

- Developing a more focused, collaborative research program for the CGIAR
- Providing a mechanism and incentive for donor funding
- Providing a strategy for delivering impact and the CGIAR mission
Much of this analysis will be based on studies of the prospects for implementing the System Priorities, as they are as yet not implemented—due in large part to the conflicts within the System, which the following analysis will reveal.

**Are the SPs a Mechanism for Greater Alignment of Center Research?**

As a mapping of the disciplinary, competencies of the CGIAR system, the System Priorities achieve a kind of virtual research alignment between Centers. The System Priorities incorporate research across the Centers in a way that reveals inter-Center research links. This illustrates an opportunity for greater inter-Center collaboration and may provide a stimulus towards greater collaboration. Table 12.1.1 illustrates the number of Centers that identify their work with each of the System Priorities, highlighting this potential.

Table 12.1.1 also shows the extent to which the System Priorities correspond to some existing inter-Center programs, including Challenge Programs and System-wide Programs. Challenge Programs are identified as possible participants in most sub-priorities, but also as leaders for the future development of others. With no links to the Science Council’s strategic planning process, the Challenge Programs evolved independently out of the reform process. Thus, the System Priorities provide a much needed basis for their integration within an overall CGIAR research strategy (see Section 8.1.6). Further, the System Priorities provide an opportunity for more strategic development of future inter-Center programs, responding to opportunities and filling gaps: the Challenge Program and System-wide Program models provide vehicles with some precedent. Science Council has already included relevance to System Priorities as a criterion for evaluating future Challenge Program concept notes, and its initial proposals for Framework Development plans recommend new System-Wide and Challenge Programs as coordinating mechanisms for seven sub-priorities, as illustrated in Table 12.1.1.

A second contribution of the System Priorities to System alignment is the generation of a boundary that identifies what is, and what is not, CGIAR research. The System, as a group of independent Centers dependent on project funding, is sensitive to trends in funding for new research and development, and vulnerable to “mission creep,” which could reduce System credibility and the focus and quality of research. System Priorities help to reduce this sensitivity, while preventing complete inflexibility to change, by encouraging that 20 percent of new research be undertaken outside the Priorities. This is not to say that the boundary, both around the core 80 percent and around Centers research in general, is presently properly located. As the Panel has shown, many stakeholders believe that it excludes the applied research and capacity building that they feel is necessary to the delivery of the core components of IPG Delivery Systems produced by the Center.
The System Priority matrix therefore provides a useful framework for picturing the eclectic mix of Center research programs, Challenge Programs, and System-wide Programs that comprise the CGIAR System’s research activity. It provides the outside world with a clearer answer to the question, “What does the CGIAR System do?” than has existed before. It thereby helps collaborators and donors understand what research agendas they might wish to either embrace or fund. Internally, the System Priorities provide a means of understanding system-wide synergies and identifying gaps for future inter-Center activities, and therefore a mechanism for prioritizing future Challenge Programs and other inter-Center initiatives. Even without serving as a resource allocation mechanism, the System Priorities create both a template and a stimulus for a greater programmatic approach to research in the System.

With their capacity to describe research across the System, do the System Priorities provide a mechanism for reorganizing research on a programmatic basis? This is the objective towards which Science Council was progressing through development of Framework Plans for each of the 20 sub-priorities.

A first observation is that different sub-priorities would require different approaches to management and resource allocation. For some, most of the research agenda would fall within the core capacity of a single Center, which would logically provide leadership for that sub-priority. For instance, ILRI, WorldFish, CIFOR, and IWMI would probably coordinate and substantially deliver those sub-priorities dealing specifically with livestock (1C, 3B), aquatic animal resources (1D, 3C, 4B), forestry (3D) and water (4C) respectively. Presumably lead Centers would benefit from links with other Centers that extend work on their core activities either geographically or into different sectors, while the limited involvement of other Centers in this sub-priority would benefit from support of the lead Center.

For other System Priorities, many Centers could have equally substantial roles because they bring in particular commodities or eco-regional expertise around a shared science problem—for instance in crop genetic resource conservation (1A) or crop breeding (2A, B, C). In this instance, alignment would involve a distributed network of institutions with a shared coordinating mechanism. Existing inter-Center initiatives, such as the Generation Challenge Program or the System-wide Genetic Resources Platform, provide possible models.

Finally, a similar, but more complex management challenge would exist where Centers contribute research elements in quite different disciplines to address complex problems, such as the NRM-related sub-priorities in Priority 4. This would require a systems approach, and as above, a shared coordinating mechanism. System Priority 5 poses a particular challenge because it is focused on one discipline, social science, and it is not
clear that it would logically be led by one Center, IFPRI, or by a distributed network of social science research groups located in different Centers.

In almost all these models for Systems Priority management, a particular Framework Plan would involve inter-Center management across a substantial number of Centers. Evidence for this comes from the first round of Center alignment, for the 2007-2009 MTP. Here, each Center put its own research into a surprising range of sub-priorities, with the result that 14 of the 20 sub-priorities would involve ten or more Centers (see Table 12.1.1). However, there is a simple explanation for this: Centers have addressed the CGIAR mission through their individual mandates by seeking “economies of scope,” investing not only in technology development but also in appropriate NRM, marketing, policy, capacity building, and other research that supports adoption and implementation of their outputs. Therefore, it is not surprising that many Centers have activities over a range of System Priorities.

This degree of inter-Center management of sub-priorities would pose two major challenges. The first involves substantial transaction costs, as each of the 20 Framework Plans would need a multi-Center management system, led either by a Center or by a consortium or, possibly, by an independent entity, as in the case of current Challenge Programs. Every Center activity covered by the System Priorities, envisaged to be 80 percent of total Center activity, would be negotiated and possibly co-managed with other Centers.

Second, Centers would still have to maintain their own core strategic program, to deliver results against their particular commodity or other objectives. They may encounter difficulty balancing these core activities with the need to cooperate with other Centers in System Priority delivery. For instance, a commodity Center can currently invest in specific NRM research to better understand factors limiting uptake of its varieties. Under a System-Wide NRM program, that Center may be called upon to deliver a greater or a different investment in NRM research—for instance a regional responsibility or a specific investment in multi-cropping vs. its single commodity NRM systems. Resources thus assigned would inevitably compete with those for other activities. To some extent, this may be a transitional issue, as Centers move from a largely internal to a more shared research program.

Finally, with respect to Center alignment with System Priorities, the focus of the Priorities on strategic research delivering IFGs has the potential to miss an important aspect of CGIAR system alignment: the regional organization and coordination of research effort. One of the planks of the CGIAR’s Vision and Strategy was the need for a research approach focused on regions. Regions and their economies differ considerably in their need for agricultural research, and frequently the CGIAR has examined opportunities for better alignment of research between Centers at the regional level (e.g., TAC 2001).
Working in similar agro-ecosystems with the same partner institutions, Centers in a particular region face similar challenges around developing the best methods for supporting adaptation and adoption of research outputs. NRM activities in Priority 4, in particular, will need to have a regional dimension in any Framework Plan. If such regionally- or locally-focused research were not sufficiently accommodated in System Priorities, important opportunities for Centers to align their programs in support of local partners would be lost.

While a process of System Priorities can provide a visualization of future system-wide research alignment that informs Centers, donors, and the development of Challenge Programs, shaping Framework Plans for implementation across all sub-priorities would require the minimization of transactional costs and the resolution of conflicts with Center strategies, and would need to address alignment of regional research activities, if they are to mesh with programmatic alignment.

With Framework Plan development now redirected towards new thinking about fewer strategic priorities arising from the Change Management process, it is important to take the lesson from System Priority implementation that moving from a Center-focused to a program-focused research agenda will have high transaction costs and will need to be balanced with Centers’ own needs for an internally coherent research program.

**Are the SPs a Mechanism for Greater Donor Funding?**

From the outset, System Priorities were seen as a means to improve donor support by providing a cohesive plan through which donors could harmonize their funding to achieve better results. A set of System Priorities provides both a means and, potentially, an incentive, for providing Centers with more unrestricted funding.

ExCo established first a Task Force, and then an Ad Hoc Committee on Funding System Priorities, to develop principles and models for funding the CGIAR through System Priorities. The AHC took a pragmatic approach, informed by the negative reactions of Centers to the System Priorities (see Section 12.1.4) and fully aware of the reluctance of donors to provide unrestricted funding or to coordinate their investments. Despite these obstacles, it produced a model for “kick-starting” the funding of System Priorities that would provide necessary incentives for both Centers and donors and, potentially, reduce transaction costs.

This model was based on a matrix that situated Centers or Challenge Programs on one axis and System Priorities on the other. Across this matrix, Centers would distribute their “demand” in terms of their planned research investments under different System Priorities, and donors would distribute their “supply” in terms of planned funding to Centers and System Priorities. Subtracting supply from demand identifies where funding
must be added or removed to deliver System Priorities. Unrestricted funds may then be applied to fill gaps. Which gaps are filled would depend on a judgment on the relative importance of remaining System Priorities, based perhaps on their potential impact on poverty reduction.

This mechanism bears a superficial likeness to how unrestricted funds were allocated by TAC prior to System reform, based on System Priorities that TAC established. The difference here, however, is that this mechanism involves all participating donors in deciding about allocation, based on priorities on which they have all agreed, and involves all participating Centers in agreeing to a programmatic funding approach. For a particular System Priority, therefore, this mechanism will work if there is:

- a coalition of donors willing to harmonize their funding allocations;
- a coalition of Centers willing to adopt a programmatic funding model; and
- sufficient guarantee of funding to Centers to encourage participation.

While Science Council has made efforts to establish these conditions, they have not yet been achieved. The fact that a mechanism exists at all is, however, indicates the interest of Centers and Members in establishing programmatic funding in the CGIAR.

**Are the System Priorities a Mechanism for Delivery of CGIAR’s Mission?**

The mission of the CGIAR is “to achieve sustainable food security and reduce poverty in developing countries through scientific research and research-related activities in the fields of agriculture, livestock, forestry, fisheries, policy and natural resources management.” One of the objectives of the System Priorities was to deliver this mission. In 2004, the Science Council stated that “the overriding criteria for the selection of a problem as a system priority would be the expected impact of CGIAR Research on the alleviation of poverty in a manner compatible with sustainable management of natural resources per dollar spent.”

While the development of the System Priorities has taken into consideration challenges to poverty reduction, this was only one of many factors considered. Further, in its last stages, selection was focused on existing research competencies across the Centers, such that the result was very much a menu of these factors. There is little question that the Priorities would have made some contribution to poverty reduction, and to the Millennium Development Goals, as outlined by the Science Council (2005). Further, the process has identified new areas of research for the CGIAR where innovative science can contribute to poverty reduction, such as emerging opportunities for high value horticulture.

However, the selection of System Priorities was not based on any *ex ante* evaluation of the impact on poverty of each research area, though such an evaluation could have been used to select a portfolio of research from amongst CGIAR competencies that would maximize
this impact on poverty. Therefore, the Priorities cannot be considered a set of research priorities for poverty reduction. Center and Members share this widely held view, as indicated in the stakeholder surveys (see Section 13.1.4). One EIARD member put it this way: “System Priorities are the trees making it impossible to see the forest of a strategy.” There is also broad stakeholder agreement that, without a more explicit link to impacts on poverty, the existing System Priorities will not be as attractive to donors.

What can be done with the System Priorities as they stand? Currently, they are not linked to an appropriate analytical framework that would allow prediction, or comparison, of their impacts on poverty. For some Priorities, this might be possible. A recent project between IFPRI and the University of Minnesota, “Harvest Choice,” funded by the Bill and Melinda Gates Foundation, is seeking to develop detailed ex ante frameworks for assessing research priorities in terms of their impacts on poverty, either through income, improved nutrition or environmental services, at a relatively high level of spatial and problem resolution (http://harvestchoice.org). These frameworks might be particularly suited to System Priorities 2 and 3; indeed Harvest Choice is already assisting the Generate Challenge Program in this context, though providing valuation of the impact of NRM and policy research on poverty will be more challenging, and an uneven capacity for ex ante impact assessment across the research spectrum of the CGIAR could distort impressions of potential impact.

Were current System Priorities to be linked to ex ante impact assessments in the framework planning process, donors might have more confidence in investing in CGIAR research, and might even choose to allocate resources to those areas with greater predicted impact. Undertaking this for all 20 sub-priorities would be challenging, given their diversity. Further, System Priorities are set at different levels, making their potential poverty impact more difficult to compare: a new variety of commodity may contribute to the success of a new system for NRM, but the potential impact of one investment cannot be separated from that of another.

However, returning to an alternative, original vision for the sub-priorities, as a portfolio of 20 competencies which could be sub-selected and “clustered” so as to address key development challenges— for example, climate change or nutrition and health— ex ante impact assessment could play a role in selecting, and selecting between CGIAR investment in these challenges.

Finally, achieving the greatest impact from CGIAR research is not just a function of what research is done on what topic, but of how that research is organized to generate outputs that are adopted and implemented along a clear impact pathway. The effectiveness of System Priorities in contributing to impact depends on how well they are connected to these pathways. Currently, the strong focus on IPGs and strategic research puts them
some distance from impact pathways, and will inevitably reduce their potential for impact.

In various surveys, many Centers expressed the view that System Priorities exclude important impact-related activities, including training, applied research to adapt technologies or methods to local conditions, and scaling up activities. In 2006, a workshop was held to address the issue of where CGIAR research (i.e., System Priorities) should sit along the “research for development” continuum. Participants included Members and Science Council representatives and outside experts, with some representation from Centers. There was a consensus that Centers should not get involved in activity strictly related to development, but it was also noted that adapting and adopting the outputs of strategic research with partners often posed a new set of applied research questions on how best to ensure the implementation and impact of research at the regional and local level. Some felt that this “learning” part of a development process deserved inclusion in System Priorities activity. Centers had been successful in delivering important impact through helping partners with such activities.

12.1.6 Conclusions and Recommendations

The Science Council developed System Priorities for CGIAR research with objectives in three broad areas of improvement: (1) better delivery of the CGIAR mission; (2) greater research alignment across the System; and (3) greater funding. Science Council has made considerable effort to implement the Science Priorities, but progress has been slow. There is widespread concern, particularly among Centers, that System Priorities will not be effective across these original objectives. The recent apparent decision to discontinue development of Framework Plans, and the strategic efforts being made by the Change Management Team, would suggest that the CGIAR has effectively decided that the System Priorities have not been effective.

The System Priorities have not set strategic targets for outcomes and impacts that will deliver the CGIAR Mission. While each of the 20 sub-Priorities, through Framework Planning, could have been developed into outcome- or impact-based programs, this would have been a complex undertaking and would not have addressed the problem that, overall, the System requires a strategic approach that is more than a portfolio of competencies.

Accepting that System Priorities have not delivered a research strategy for the CGIAR, they have nonetheless been an instructive exercise, with lessons for the future. They have shown how research in different Centers can fit together in a Center-wide research framework, and how special, inter-Center initiatives—such as Challenge Programs and SWEPs—can strengthen that framework. The Priorities have stimulated a necessary consideration of how boundaries might be drawn around CGIAR research. They have
highlighted important issues for any future consortium of Centers, such as how genetic improvement, NRM, and policy research should be distributed across Centers. They have explored using the System Priorities framework as a resource allocation mechanism, and have identified some important and challenging conditions that must be addressed for this mechanism to be successful.

The System Priority exercise has also highlighted the potentially high transaction costs associated with implementing a System-wide strategy. This will be true of any process which seeks to develop cross-Center research programs around strategic objectives. While 20 sub-Priorities, most with multi-Center Framework Plans, may be a particularly complex strategic approach, any inter-Center program structure will encounter challenges similar to those experienced in the System Priorities. This is also true for the use of priorities as a basis for resource allocation. This is an important lesson for future strategic development, such as that underway in the current Facilitated Change Management Process. The three strategic objectives initially accepted as part of the Facilitated Change Process recognize the need for focus.

The System Priority exercise has particularly suffered from a lack of a common vision between Science Council and Centers. Centers have been reluctant that System Priorities be more that a plan for research alignment and future collaboration, and have resisted any major restructuring of their research programs around System Priorities, for a variety of reasons. An important lesson of the System Priority exercise is the need for institutions undertaking research to have a major role in developing the strategy that they will implement, in order to ensure both ownership and feasibility. In the existing Priorities, Center scientists were involved in identifying priorities, and Center managements were consulted during the process, but this involvement was clearly insufficient to build full ownership of the plan by Centers. Were future strategic planning to be led collectively by the Centers that will implement it, they would be more likely to have ownership of, and accountability for, its implementation.

The Panel recommends development of a new research strategy, focused on the CGIAR mission, to be undertaken, concurrent with the establishment of a new governance structure for the CGIAR as described in Chapter 12. Under this concept, a research strategy should be results-based, initiated by Centers (the Consortium), with support from a science advisory body, such as the Science Council. The final strategy should be the result of a consultation between Centers and donors (the CGIAR Fund) and form the basis for the workplan under the new governance system. The final product of the negotiation between the fund and the consortium becomes a joint product with joint ownership.

Finally, one indirect consequence of plans for System Priorities has been the further exposure of differences between Science Council and many Centers on the CGIAR’s role in
research for development. The Science Council’s strong position that System Priorities must focus on strategic research and delivery of IPG has been interpreted by many Centers as discouraging involvement in more regional and local research activities associated with ensuring impact of scientific outputs. The issue of where the Priorities should sit on the “research for development” continuum has become polarized, and this has affected cooperation between Science Council and Centers.

The Panel recommends that the Science Council and Centers establish an open and constructive dialogue to understand and agree to the role of Centers in research for development, and particularly their responsibilities with respect to core and complementary components of an IPGs delivery system. (see also Section 6.4).

12.2 Managing for Global Development Results

12.2.1 Managing for Development Results is Key to Reform

The CGIAR and affiliated Centers are operating in a fast-changing context of development cooperation. In many respects this decade has been an era of deep reform and reformulation. Managing for Development Results (MfDR) is a central tool of this reform.

The current international impetus for change began with adoption of the Millennium Development Goals in 2000, continued through the Monterrey Financing for Development Conference of 2002 and several international roundtables on Managing for Results, culminating in the Paris Declaration at the High-Level Forum on Aid Effectiveness in March 2005. Through these events, the international community has developed a shared understanding of the power of focusing on results rather than on inputs and processes.

This report makes the case that new principles and expectations established by donor and developing country governments apply to all facets of donor ODA programs whether delivered through their bilateral or their multilateral programs. As recipients of funds and “doers” of research the Centers face many of the issues that developing countries do: high transactions costs whose origins are found in multiple donor agendas, multiple reporting systems and separate (and often duplicating) evaluations, multiple idiosyncratic projects to manage, and unpredictable funding. Similarly, the CGIAR plays the roles typical of donors, and must adapt to new thinking. The CGIAR members and donors are committed by the Paris Declaration to mutual accountability, managing for results, harmonization, alignment, and coordination among themselves to provide support to the Centers. In turn, Centers need to meet their side of the Paris Declaration bargain—which is to adopt good governance practices and to deliver results-based and transparent management.
12.2.2 Strategy and Results-Based Frameworks: Improve Management and Trust in the System

A recurring theme in the Panel’s and in the EPMR analysis of the Centers and the Challenge Programs is the lack of focus caused by the absence of agreed overarching strategies. At the Systems level, Centers and funders have no guiding compass to make difficult decisions and to align behavior, or to scale up results even if through different means. Centers as a collective do not have a clear statement of the CGIAR purpose that can be easily communicated and internalized by staff.

A results oriented strategy would begin with a broad vision statement. The mission statement with measurable indicators and three to five strategic objectives, with measurable indicators, needs to define the distinct contribution of the CGIAR to agricultural research for development. The draft developed by Working Group 1 is a good start, but the vision and mission statements do not yet distinguish the CGIAR from other international agriculture organizations; nor are the strategic objectives specific in commitment to quality, quantity, or time targets. Without these improvements, there is no foundation to manage for and measure results as a system.

Figure 12.2.1: What is Managing for Results

The CGIAR Consortium needs an overarching strategy, backed by a high-level results framework within which Center strategies and their shared program strategies would be nested. Center and program results frameworks would provide the base from which a new Performance Measurement System would supply less detailed, higher order performance information at the Consortium level for use by the Consortium Board, and perhaps donors, for their reporting requirements. A good results system uses the minimum number of indicators to measure what is important. These indicators are just enough to manage performance at one level in order to achieve the objectives at the next
level up. A *one entry multiple use information system* would support senior scientist performance management needs and underpin aggregation to high level results reports for use by Center management and Board Members. From there, a few but vital indicators would roll upward to report performance on the progress towards the CGIAR strategic objectives and cross cutting program objectives.

**Figure 12.2.2: Strategic Performance Measurement Systems**

The resulting strategic information system would assist donors in aligning their funding and programs toward shared desired outcomes and in harmonizing their processes. It would support strategic decisions and the replenishment of the fund and allocations to specific programs, supporting the funding of larger program “buckets” through performance contracts between the Consortium and the Centers. *(See Figure 12.2.2)*. An integrated system for collecting higher level results would build trust through evidence, and provide the base for Donors to do their own reporting without coming back repeatedly to Centers for information.

Such a system would capture the work of the Centers towards common objectives. A results information system that cuts across the Centers does *not* imply that all Centers do the same thing. They contribute different outputs but aim at shared strategic objectives e.g., food productivity increases, improved policy environment for poor farmers to access international trade opportunities, or increased evidence of health stemming from higher nutrient foods.
12.2.3 Considerations for a Future CGIAR Approach to Results Frameworks

As a System with a mandate to deliver International Public Goods, the CGIAR could consider articulating indicators for its strategic objectives at different interlinking scales or regime levels. For example, CGIAR Centers have achieved global impacts, but there is no articulation of goals at the global level. The Centers work at the network level for regional impacts, and they work nationally. Further, they contribute to development and institutional strengthening at all three levels through capacity development and policy advice. They work in partnership at all three of these scales. Table 12.2.1 illustrates a sample high-level results framework that could be further developed into a limited number of selected goals with a few proxy indicators as progress markers on the way to achieving desired results. The table starts with the assumption that development impact and institutional impact are twin drivers and that clarity on desired partnership impact is a necessary condition of success. All three should be taken into account in defining strategy and in setting up results frameworks.

Table 12.2.1: Managing the Scales and Reinforcing Alignment

<table>
<thead>
<tr>
<th>TARGETED BENEFICIARIES: Development Impact</th>
<th>INSTITUTIONS AND SYSTEMIC POLICY FRAMEWORK: Sustainability/Scaling Up</th>
<th>PARTNERSHIPS: Ownership, Agriculture Research Positioning, Resource Mobilization</th>
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<tbody>
<tr>
<td>1. Global Public Goods</td>
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<td>Long Term Strategic Objectives</td>
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<td>1. Center linked genetic lines increase</td>
<td>1. Co-sponsors judge CGIAR System as a partner and a key</td>
<td>1. CGIAR System and strategic partners position Agricultural Research for Development (R4D) as key to climate change mitigation and adaptation, food security and food productivity for the poor.</td>
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<td>agriculture productivity, increase food</td>
<td>component the international agriculture architecture.</td>
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<td>security and increase the nutritional</td>
<td>2. CGIAR policy dialogue at the global level (FAO, IFAD, UNDP/EP</td>
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<td>value of food.</td>
<td>and with international NGOs and Private Sector) advances the</td>
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<td></td>
<td>interests of the poor farmer and food consumer, especially</td>
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<td></td>
<td>women.</td>
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<td>2. Natural resources and biodiversity</td>
<td>3. Trust in CGIAR System increases as seen by annual real</td>
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<td>management discoveries to have</td>
<td>funding increases to 2020.</td>
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<td>contributed to decreasing rural poverty</td>
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<td>and increasing small-holder</td>
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<td>representation in agricultural markets.</td>
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<td>3. Global vulnerability in food security</td>
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<td>decreases linked to Centers? program-</td>
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<td>based research and policy impacts.</td>
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<td>2. Regional/ Country Regional Public</td>
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<td>Goods</td>
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<tr>
<td>1. CGIAR-based research Has been</td>
<td>1. CGIAR System partners with national/regional entities to</td>
<td>1. CGIAR supported Centers core activities complemented by donors programs and national programs.</td>
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<tr>
<td>integrated, assessed and given</td>
<td>improve expenditure in agriculture research and to rebuild</td>
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<td>regulatory or other shape at the</td>
<td>national systems.</td>
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<td>regional and country level.</td>
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<td>2. CGIAR System research creates a</td>
<td>2. CGIAR- trained scientists supported by donors graduate</td>
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<td>critical mass of</td>
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Chapter 12 Managing for Results
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<tr>
<th>TARGETED BENEFICIARIES: Development Impact</th>
<th>INSTITUTIONS AND SYSTEMIC POLICY FRAMEWORK: Sustainability/Scaling Up</th>
<th>PARTNERSHIPS: Ownership, Agriculture Research Positioning, Resource Mobilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge to affect Regional and National approaches to agriculture for the poor and for demonstrating success. 3. Small scale farmers and fishers and other natural resource workers are better off using CGIAR varieties and other discoveries.</td>
<td>and have access to a global research fund for strengthening national research organizations and NARs. 3. CGIAR attracts and retains leading scientists.</td>
<td>based partnership decision-making, reinforce alignment; collective action to achieve CGIAR strategic objectives. 3. Improvement shown in focus on shared priorities, adequacy and predictability of funding and harmonized procedures. 4. Transactions costs reduced.</td>
</tr>
</tbody>
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3. Operational Outcomes

<table>
<thead>
<tr>
<th>Common (intermediate) outcomes to be achieved across the all instruments.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Beneficiary voice, especially female farmers improve agriculture research relevance. 2. Center clients use CGIAR science to improve the lives of citizens, especially the poor.</td>
</tr>
<tr>
<td>1. Investment efficiency improves: most promising lines of research for achieving strategic objectives are identified, 2. Research quality improves by more strategic choice of investments, and timely adjustments made to reflect new science. Process efficiency improves, e.g., publications, grants, lab analysis, and policy interventions.</td>
</tr>
<tr>
<td>1. Relationships with NARS, private sector and rural development NGOs create a positive environment for knowledge sharing and for applying CGIAR science and NARS science at the farmer level.</td>
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</table>

Source: Independent Review Panel

### 12.2.4 What is Managing for Development Results?

Stepping back to review MfR may be useful before the Panel looks more closely at the current Performance Management System (See Section 12.4). Managing for Results is at the heart of the New Public Management, which adopts modern management of techniques in response to a more educated human resource base, a deferential and more demanding public, and a more interconnected world. This new model is *client-centered* in that institutional objectives define changes in development conditions. MfDR is mission directed, and focuses on using evidence to make decisions and to promote continuous performance improvement to achieve public ends. Good reporting is a benefit of, but not the primary purpose, of MfDR.

MfRD is often referred to as “systems-based or holistic.” It serves the experimental human development orientation of development better than a linear “blueprint approach” that is embedded in the log frame analysis. It encourages flexibility to change activities and outputs as learning occurs. In addition, the model recognizes the need for Center managers to adjust knowledge outputs and partnership arrangements as needed to achieve agreed outcomes. Decentralized authority is necessary to adjust output production.
to achieve the most uptakes by clients for the best societal results. In exchange for decentralized authority managers take on a higher accountability to demonstrate that their outputs are being used and that the use of the intermediate outcomes is creating quality of life changes. (See Figure 12.2.3).

**Figure 12.2.3: Basic Results Chain**

Table 12.2.1 provides the results chain models currently in use by many public organizations. In the case of the CGIAR, the first goal of research is to create new knowledge. Accomplishments delivered by the Centers entail:

**Outputs:** goods and services delivered outside the organization. For example:
- Center research findings such as improved breeding material
- Center research papers published in refereed journals
- Innovative communications strategies developed to reach target clients
- New technologies developed by Centers alone or with partners
- Women and developing countries scientists trained at CGIAR Centers.
Intermediate outcomes: the use of the outputs by clients. For example:

- NARS adopt CG Center improved breeding material to develop location specific varieties
- Other scientists and policy makers use Center papers appearing in refereed journals. For example IFPRI publications influence government economists to launch targeted food subsidization and lift bans on food exports to support agriculture during the food price crisis
- Soap opera producers use CGIAR technology in rural scenes which illustrate new ways of harvesting and processing new varieties of cassava or new ways of conserving water
- Center trained female scientists work in National Agricultural Research Institutions developing country institutions and improve collaboration with NARS.

Outcomes: the desired effects of the use of the Centers outputs (effects of the intermediate outcomes). These are most often described as quality of life improvements. For example:

- Farmer use of improved varieties increases their productivity and thus farm income
- Government action to target food subsidies to the poor reduces hunger during the food price crisis and increases farmers’ access to international markets thus increasing farm income
- Broad uptake of new cassava harvesting and processing techniques and water conservation techniques among soap opera watching communities leads to improved rural income and sustainability
- Women and developing country scientists improve the quality of science in NARIs and the private sector.

Impacts: long-term societal gains that accrue from outcomes, for example:

- Rural income is increased
- Urban and rural health improves because of access to healthy food
- Developing countries become more competitive in agriculture
- Ultimately, along with complementary outcomes from investment in infrastructure, health and education poverty is reduced at a large and permanent scale.

12.2.5 What is Different and What Needs to Change?

The principles that underlay the CGIAR system, such as donor sovereignty, Center independence, and consensus decision-making have worked against the use of tools that can provide focus, streamline decisions, and align resources to achieve larger system wide objectives. Hard decisions around trade-offs cannot be made and, sadly, the big picture of the Centers’ collective achievements is fractured and difficult to see. As noted in Section 12.1, the systems priorities has impeded a Managing for Results approach because of identified weaknesses, including:
Independent Review of the CGIAR System

- Lack of alignment with overarching strategy and core strategic objectives
- Five main priorities and 15 sub-priorities are too numerous and without action statements or metrics of achievement.

The weakness of the PMS system is that it is not used to manage for changes in development conditions targeted by the System. It is focused largely on outputs, and by skipping the “intermediate outcomes” level assumes that the use of the Center outputs indicates positive development outcome. (See also PMS Section).

### Table 12.2.2: Differences between the CGIAR and an MfDR Approach

<table>
<thead>
<tr>
<th>WHAT MfDR INVOLVES</th>
<th>WHAT CGIAR DOES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results-oriented strategy sets strategic directions and defines desired outcomes of Centers and programs relative to the mission and strategic objective indicators</td>
<td>Competency-oriented strategy, not prioritizing research for results</td>
</tr>
<tr>
<td>Management decisions and resources aligned with strategic objectives</td>
<td>There is no management system: Independent Centers not working together or effectively with CGIAR and its coordinating bodies</td>
</tr>
<tr>
<td>Programme performance targets clients/partners and client/partner’s beneficiaries quality of life improvements</td>
<td>Programme performance targets outputs, and is unclear about IPG “core” and “complementary” roles</td>
</tr>
<tr>
<td>Indicators used to direct resources to most effective results, motivate staff and improve service</td>
<td>Mistrust between System and Centers relates to indicators and evaluation and leads to poor cooperation.</td>
</tr>
</tbody>
</table>

Source: Independent Review Panel

### Adoption of Modern Results Management Techniques

To take full advantage of a results approach to achieve the “promise of Paris,” the leadership and managers will have to accept adapting the current PMS to a results-based system that collects common results indicators on what they jointly judge as key strategic objectives for the next five to ten years. Development of the indicators, learning from the Systems Priorities exercise, and avoiding the pitfalls of poorly designed systems will require expertise and fortitude. Expertise to assist managers in developing the systems and to coach them in its use is central to a system that is useful and not ritualistic. This is not a staff function; it is a line function. The Panel suggests a separate unit in the Consortium to assist Consortium and Center leadership in developing the tools, indicators, and training necessary—but not to take responsibility for defining the architecture of the system separate from intense involvement of the Center leadership and the Fund.

### Learning and Risk Tolerance

The most fundamental shift required for the CGIAR system may be cultural. Results Management is meant to engage employees, partners, and end users in a learning-based approach—one that can raise unsettling evidence about approaches that do not work. These “null hypothesis” results are as important as successful results for their contribution...
to creating knowledge about what does not work. Oversight and management needs to create a safe space for honest discussion about what worked, what did not, and why. The Results Management approach accepts the “well executed failure” as a necessary condition of finding truth. This is an initiative that is well designed and well managed, but fails only because the only way you can know if a new approach is successful is try it out. In other words, a results orientation is risk tolerant and supports innovation. It rewards knowledge from success as well as failure, as long as the evidence is used to contribute to performance improvement, quickly and transparently. Notions that accountability divides blame and punishes wrong will always be around. In knowledge organizations such as international development agencies and research organizations, accountability needs to be, and can be, recast in a more positive light that is consistent with current development policy and public sector management.

**Accountability and Responsibility**

Accountability is “an obligation to demonstrate and take responsibility for performance in light of agreed expectations.” “Mutual accountability and joint responsibility” replace more traditional hierarchical accountability models such as one-way reporting relationships between recipient and donor. Two-way reporting relationships create more mature partnerships. In the proposed CGIAR, the funding organizations and other members would agree to report on the quality, predictability, and timeliness of their contributions to a shared strategy. Centers and partners would report on agreed expectations for outcomes as set out in the results framework.

Organizations resist outcomes-based approaches because they cannot control exogenous influences that occur beyond the border of the outputs that they do control. These organizations argue that outcomes, as defined by changes in target group behavior or improvement in quality of life, are dependent on other sectors and delivery systems working well. Success at the impact level depends on luck in the weather, the political economy, and like variables. This is a reasonable argument. It is reinforced when authorizing organizations such as donors expect all activities that are funded to have a simple, linear cause and effect chain directly to the MDGs and to poverty reduction.

Resistance to outcomes-based reporting often finds its source in this tension between the reality of needing to work with partners to deliver benefits to the citizen, and the desire of governments to show direct poverty reduction results for each and every development expenditure. Partnership means multiple accountabilities and competition to claim credit for outcomes. It is ironic that funders and even evaluators demand that Centers prove direct attribution to outcomes, when experience in the public sector has shown that sustained outcome-level results come only from the mutual reinforcement of collective action across sectors, agencies and jurisdictions. This is a misuse of results methods that are designed to focus institutions on outcome-level results. It prevents breakthroughs in
large-scale achievement of outcomes through partnership, because demands to show
direct single attribution to outcome-level results create perverse incentives to avoid
cooperation and the sharing of credit.

One can be optimistic that authorizing environments can understand that progress on
societal goals such as poverty reduction, requires multiple interventions from numerous
sources. Some national authorities have tested legislative understanding of the need for
joint reporting among agencies when they are engaged in horizontal programs or joined up
programs. They have found that legislators accepted such joint reports which share credit
among agencies for outcomes achieved together.

**Managing for Results and International Public Goods**

In the context of considering Managing for Results for the CGIAR, one needs to consider
application to the core components and the delivery components of International Public
Good delivery systems.

- **Core:** component outputs under the control of the organization or network providing
  the IPG, which can be held *directly accountable* for the way in which they are produced
  and disseminated by the organization or network itself

- **Complementary:** component intermediate outcomes and outcomes not under the
direct control of the organization or network providing the IPG, but which are under
its zone of influence (as catalyst, facilitator, convener, promoter), and for which it can
be held *responsible* for understanding and improving the way in which other entities in
the IPG delivery system value and use them.
As noted earlier, no institution or sector can achieve outcomes alone, especially at a global, regional, or network level. Society lives in increasingly complex systems and its institutions are becoming more interdependent. Agriculture productivity depends on trade regimes, environmental conventions and law, transportation infrastructure, rural finance, and educational sector effectiveness. Science depends on uptake by a wider variety of partners. Science is also becoming more demand driven and answerable to a broader range of constituencies.

If the CGIAR-supported Centers are held responsible for managing for outcomes and if outcomes can be influenced and not controlled, then what is a Center’s accountability?

The Panel suggests the System and the Centers are accountable for producing outputs: high-quality science and technology products and services which are launched within agreed time and financial allocations, and which are relevant to the agreed mission of the CGIAR. The Centers could continue to measure the quality of their outputs relative to other public institutions and private firms and against agreed benchmarks. For example, the Centers would use measures to ensure funders that collections of genetically diverse seeds and other plant materials are safeguarded within the public domain. Center management would use measurement indicators to manage investment across the
production line to demonstrate that project schedules from discovery to product to product adoption have been adhered to within benchmarked variances on cost and time.

The Centers would be responsible for monitoring intermediate outcomes: the influence of its outputs on client behaviors. The Centers and their Corporation would track the CGIAR influence on international institutions to determine if those institutions benefit from CGIAR science advice. The Centers would track whether research results on the genetic enhancement of high-value species being are used by NARS and civil society organizations to assist farmers and to effect income generation from forests and natural resource management. They would be responsible for showing that their outputs are being used and that the clients using them are satisfied with the product.

The Centers would be responsible for monitoring progress toward and evaluating outcomes with clients and partners to ensure that together they have the best mix of outputs for maximum citizen effect.

**Figure 12.2.5: Accountability and Responsibility for Achieving Results**

![Diagram of Accountability and Responsibility for Achieving Results]

Source: From the work of Dutch Leonard, Harvard University, Kennedy School of Government.

The methodological challenge is to test causal effects of the CGIAR’s contribution beyond the clear zone of control (See Figure 12.2.5 and Figure 12.2.6). Clear attribution at the level of impact at a strategic level is not possible, given that other contributions and conditions necessary for sustainable development at the impact level. Impact Assessment or Impact Evaluation, not results frameworks—to test impact of programs. It draws on data outside of result reports to make judgments about possible attributions. An independent
evaluation function would assess impact at the system and Center level for accountability purposes.

It is important, when using the results approach, to learn continuously with clients and partners about how both their and CGIAR-supported contributions, and the environment in which those interventions occur, fit together to create development results. One needs to recognize that the CGIAR Centers cannot reach poverty reduction goals alone, and when they do through participatory research, they cannot scale up to global impact without building on partnerships. Their challenge is to strategically partner with others at global, network, and local levels to scale up effects of the research through complementary services for institutional strengthening and poverty reduction. Figure 12.2.6 shows this ladder of influence.

**Figure 12.2.6: Ladder of Influence**

Successful development requires partnership and requires partners to manage the linkages between them making explicit mutual obligations to demonstrate and take responsibility for performance based on shared objectives and agreed expectations.
Role of Leadership and Network Management

Management for results is called “management” because it is the work of managers not only to produce result frameworks but also to use results framework. It is a leadership and a line function, not a staff function. Implicit is management’s role in forging strategic partnerships by reaching across boundaries to other organizations and institutions. The role of scientists is to do good science. This means including end-users where appropriate. Management should be informed by the scientist viewpoint and experience with operational partnerships that often have a strategic element or potential for strategic impact. That said, management’s role is to set up results-based management and measurement systems to:

- signal priorities
- motivate staff,
- attract partners and
- track progress beyond the quality of outputs to guide continuous learning and to ensure that products are “policy and program ready” for use by others to achieve the strategic objectives of Centers and Systems.

An overarching system-results framework will enable the CGIAR to move from having multiple, idiosyncratic project result frameworks to using fewer but more vital result indicators among programs linked to higher-level, cross-sector and System-Wide strategic objectives. This opens opportunities for better coordination among Centers and with other development partners. A common currency of results measures would reduce transactions costs on reporting and would simplify policy analysis.

A results system would help the CGIAR know what works well and abandon what does not. Presently the PMS does not systematically collect information at a high level to communicate what CGIAR is achieving in science or development terms. The Panel’s visits to the Centers convinced them that the CGIAR’s story is not being told.

The lack of a clear CGIAR strategy with efficient performance reporting is at the heart of this gap. As Emory Powell once said, “A strategy without metrics is just a wish. Metrics without strategy is a waste of time.”

Management Design and Use of Results Systems

OECD-DAC evaluations of donor-results systems and World Bank evaluations of country results systems attest that managerial use of performance information, the demand by management, is the central incentive for consistently providing good data and the efficient use of staff time. A key finding of an OECD DAC study on donor experiences with results approaches was: “The most overarching consideration is that indicators provide managers with
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...the information they need to do their job." The Panel’s interviews indicated that staff spent considerable time responding to multiple and idiosyncratic demands for performance information. Yet they saw little indication that their managers or the CGIAR membership used these reports as the basis for their decisions. They did not see evidence that the value of their work was being communicated. The reports were not helping management to manage program performance.

Donors stated that the performance information system is not providing authorizing environments with the type of results information demanded. Donors’ authorizing environments are heterogeneous in the specific results they demand. However, most are looking for societal-based, development results, as opposed to process indicators such as a percentage of Medium-Term Plans targets achieved, or the measures of the quality of outcomes. Donors want to know what outcomes are being achieved at an aggregate level: are people better off and how are they better off? Has food productivity been improved and by how much, and where? Where and how have ecosystems been improved? What are the overall benefits accruing from investments in the CGIAR that merit further funding?

Attention to results has not been integrated into broader managerial routines of the CGIAR. The Performance Management System has not been designed for or by managers to improve performance (See PMS section below). System-wide governance reforms will have to include strategic performance information reports which meet the high-level strategic needs of heavily occupied senior decision makers in the CGIAR system, and in national governments and key partner organizations, Such information systems should make reasonable demands on the time of senior scientists to report just what is needed to improve performance at the next level up. The foundation for this kind of report needs to come from a more calibrated database, so that managers can improve the performance of the programs they manage. Otherwise, the system will not be taken seriously and the data reported will be unreliable.

12.2.6 Recommendations

The Panel recommends that:

- Initially and at regular intervals the Fund and the Consortium should jointly agree on a written results-based strategy which sets out a vision for the partnership (its high-level aspirations). There should be a clear mission statement with indicators, three to five strategic objectives and agreed measurable targets. The strategy should be based on an analysis of the needs of developing countries and the comparative advantage of the partnership of the Centers and the GCIAR (Consortium and Fund), compared with other international agriculture research organizations and
development organizations. The strategic objectives should inform the tradeoffs that are always needed in program decision making within resource constraints.

- A Results Framework and a Performance Framework should be developed. These would be the basis for Performance Contracts between the Consortium and the Centers and the Performance Measurement System, against which implementation would be managed and performance monitored.

- In preparation for the Inaugural Conference that will put a new governance structure in place, experts in results management should be engaged to coach Center management and the new Consortium leadership in the preparation of a world class joint strategy with donors, funders, and partners, and a strategic results framework for consideration and approval by the Inaugural Conference.

- Performance management, also known as managing for results, is the responsibility of management; this means that, in the context of the Center and CGIAR partnership, the Consortium should take the lead responsibility for the performance management and measurement system.

- Ex ante strategy studies (science strategy and potential impact studies) should remain the responsibility of the Science Council.

- A design task force should prepare a training plan for all components of the Consortium-Fund Partnership to ensure that results management is understood and works well from the beginning.

- The Fund should develop its own Results Framework against which to judge its own performance and its effectiveness in the partnership with the Consortium and other partners.

- Ex post evaluation of system outcomes and impacts and of system processes such as harmonization or partnership should be the responsibility of the new Independent Evaluation Unit.

- An Independent Evaluation Unit should be charged with evaluating the partnership’s achievements against each of the strategic objectives, and the impact of the Fund, Consortium, Centers and Donors.
12.3 Performance Measurement

12.3.1 Design and Use of the Performance Measurement System

At its September 2002 meeting, the CGIAR Executive Council stressed the need to take a fresh look at performance measurement. At the same time the Working Group on the Establishment of the Science Council was debating reform of evaluation methods across the CGIAR and Centers. It urged “much wider use of self-assessment in reviewing and enhancing the quality of science in the CG System;” and suggested a performance measurement framework based on quantitative indicators of outputs and outcomes/impacts.24

In 2003 the CGIAR established a Working Group on Performance Measurement Systems. It examined various performance measurement systems in other organizations and compiled a Sourcebook on the topic. It reviewed four common conceptual frameworks for performance measurement and several approaches to performance measurement in science systems. These included qualitative (peer-review) systems, quantitative measurement systems and mixed systems, such as the National Institutes of Health in the USA, the Brazilian Corporation of Agricultural Research, and the Australian Cooperative Research Centers Program.25

“The challenge was to design a system that could measure the performance of 15 heterogeneous Centers with different mandates and missions, using a simple and reliable set of indicators that are sufficiently generic but still meaningful.”26

The Sourcebook concluded that the following principles should guide the development of a performance measurement system (PMS):

- Start with agreement on the purposes of performance measurement
- Carefully manage the development and implementation of the system
- Base the PMS on organizational goals and strategies
- Establish guiding principles and rules of the game
- Emphasize learning and performance improvement
- Integrate the PMS with broader management and evaluation processes
- Resource allocation decisions require a depth of understanding that cannot be provided by a PMS alone
- Assess the performance of the PMS and modify and improve it over time
- Combine quantitative and qualitative indicators of scientific accomplishment.

The recommended approach27 was the basis for the PMS that was piloted in 2005 with 2004 data, and has been used annually since. It is not comprehensive for the whole
network/partnership. Specifically it covers the Centers, but not the CGIAR, the joint administrative and program units, or the Science Council.

**Self-Assessment and Verification**

The PMS is mainly a self-assessment system, but it has elements of independent verification and elements of independent scoring of performance (by the Science Council, SPIA and SPME, external panels).

The CGIAR Internal Audit Unit (a unit of the System Office) did the verification at first; but now a consultant undertakes the verification tasks in collaboration with the Internal Audit Unit. For example, to verify publications, the consultant selects five Centers at random and verifies indicator 4A (“the number of externally peer-reviewed publications per scientist, excluding articles published in journals listed in the Thompson Scientific/ISI”). That done, he or she selects another five Centers at random from the remaining Centers and verifies indicator 4B. The remaining five Centers have their 4C data verified.

**Role of the Secretariat**

The CGIAR Secretariat is the focal point for the PMS. It writes the annual guidelines in close collaboration with the SC/SC Secretariat (by also consulting with Centers), handles the collection and compilation of data from Centers through an on-line system, manages the external verification, and prepares an annual report. This report is presented to the Executive Council of the CGIAR, in conjunction with the Science Council, for transmittal to Members at the AGM.

**12.3.2 Stakeholder Survey**

In addition there was a “stakeholder perception survey” in 2006, which CGIAR intends to commission every three years. The sample was a purposive one in the sense that the partners’ names were supplied by the Centers; and the response rate was low (36 percent on average). There was a high of 38 percent response for CIAT partners and collaborators, and a low of 13.5 percent for IFPRI and WorldFish partners and its collaborators. Therefore the results are, to some degree, likely to be biased towards partner/collaborators that are well disposed to the Center in question.

The Centers’ research received high marks from these stakeholders. Most felt that performance had remained about the same or improved over the previous five years. Not surprisingly, the stakeholders felt that CGIAR research should be directed more at the development needs of national institutions.
The World Bank gives a very small weight (1 percent) to each Center’s scores on the Stakeholder Survey, in allocating monies among them.

12.3.3 Lessons Learned on Results Monitoring, 2005 and 2008

After the PMS pilot in 2005 the Science Council suggested some lessons that could be learned,29 with adjustments each year as the Secretariat and the Science Council have gained experience. In July 2008, a Performance Measurement Workshop was conducted.

The first group of lessons reported by the Science Council in 2005 was in the “results dimension;” that is, they were lessons about outputs, outcomes, and impacts.

The Output Indicators

The Science Council believed that the output indicator “percent of output targets achieved” had proved to be appropriate, but said that it would need to work further with the Centers to guide the planning of output targets so they are measurable, clear, and significant. However, by 2008 the CGIAR had essentially given up on the setting this performance variable into operation.30 It was proposed that there be no variable that measures outputs in the aggregate but, rather, individual outputs would be tracked and information about individual projects made available on-line to anyone interested.

Centers would be able to report partial achievement or full achievement of a particular output target. Other changes proposed to the measurement and reporting of outputs were that publications would be considered outputs and a new measure of publications performance would be designed: a weighted average of three publications variables presently in the PMS (variables 4A, 4B and 4C) plus a new category (within 4A) which would recognize the registration of a new cultivar as equivalent to a peer-reviewed publication.

Two new “output” indicators would be designed: one to measure the outputs of capacity development activities and a second to measure the Center’s performance in collecting, managing, and publishing research data as International Public Goods. This indicator would incorporate the old indicator relating to the number of articles published jointly with an author from a developing country.

As well, the denominator of the “publications productivity ratio” will be considered further; specifically, it may be “publications per unit of total budget” rather than “per researcher.”
The Outcome Indicators

In 2005 the Science Council decided that if Centers were provided with guidance on reporting their five best outcomes (that fully met the CGIAR definition of outcome; that is “adoption, use or influence of Center outputs”) then these could be assessed and rated by the Science Council. It should be noted that outcomes are more usually considered to be changes in people’s life conditions. Outcomes are part of the chain of results between the completion of outputs and the achievement of impact. Outcomes are generally attained through partnerships.

In 2008, it is proposed that outcome scores as defined by the PMS would be based on a three-year rolling average and that larger Centers would be asked to submit more outcome statements.

The Impact Indicators

In 2005 two “impact-related” indicators were tested and accepted: is the Center “impact minded,” and does it do rigorous impact studies? In 2008 it is recognized that this is not in itself an adequate approach to monitoring impact. There is a commitment to try to develop a measure of actual impact by AGM 08.

Lessons

In 2007, the following lessons from the first years of implementing the PMS were drawn:

- Although there are costs to the Centers in providing the PMS information, money is saved in the long run by having a standard system across all Centers. Otherwise they would come under increasing pressure each to respond to separate donor systems.

- The Guidelines for reporting performance data should be practical and simple in defining indicators and collecting the data, rather than trying to cover every possible exception and individuality.

- Reports show that the Centers’ understanding of the differences between outputs, outcomes and impacts is unclear.

- The PMS currently measures the quality of impact monitoring as a proxy for impacts themselves, which would require in-depth studies rather than annual collection of standard indicators. Nevertheless, the current indicators are useful although insufficient. Therefore, possible approaches to quantitatively measuring research impact as part of an indicator system are being revisited by the CGIAR.
• The “checklist” approach to scoring e.g., institutional health, has strengths and limitations. Experience with this approach has shown that checklists can help to capture significant points in a standard way. They are a clear indication whether certain processes and practices are in place. However users need to understand that checklists do not capture whether and how, for instance, policies are enforced, or the quality or impact of a certain practice or process. Some of these limitations may be lessened by the narrative evidence that is assessed against certain criteria (e.g., an assessment by an external panel of two governance actions by each Center Board.)

• Benchmarks for some indicators are not possible. Nevertheless, monitoring the indicator appears to have moved some Centers away from undesirable extremes.

### 12.3.4 Types of Performance Information

The PMS collects several types of information annually and stakeholder perception information triennially:

1. Results information (outputs, outcomes, and impacts)
2. Quality and relevance of current research
3. Institutional Health (governance, culture of learning, and change and diversity)
4. Financial Health
5. Stakeholder perceptions (every three years)

The information on financial health is not collected directly from Centers, as other information is, but rather is obtained from the CGIAR Finance Information System (FIS). The types of information collated in the PMS are as follows:

**Table 12.3.1: Performance Measurement System (2007 Data Reported in 2008)**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>(A) Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outputs, Outcomes and Impacts</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Percent of MTP output targets achieved</td>
</tr>
<tr>
<td>2</td>
<td>Science Council score on each Center’s five most significant outcomes during that year (Scale 1 to 10)</td>
</tr>
<tr>
<td>3A</td>
<td>Science Council/SPIA rating of each Center’s commitment to documenting impacts and creating an impact assessment culture</td>
</tr>
<tr>
<td>3B</td>
<td>SC/SPIA rating of the rigor of two Center impact studies carried out in those three years. (This indicator is collected only once every three years)</td>
</tr>
<tr>
<td><strong>Quality and Relevance of Research</strong></td>
<td></td>
</tr>
<tr>
<td>4A</td>
<td>Number of externally peer-reviewed publications per scientist in that year (excluding Thompson/ISI journals)</td>
</tr>
<tr>
<td>4B</td>
<td>Number of peer-reviewed publications per scientist in that year in Thompson/ISI journals</td>
</tr>
<tr>
<td>4C</td>
<td>Percentage of scientific papers that are published with developing country partners in refereed journals, conference and workshop proceeding</td>
</tr>
</tbody>
</table>
12.3.5 Use of the PMS Information

(1) Using Performance Data to Guide Resource Allocation

In 2008, the World Bank allocated about one quarter of its DGF grant to Centers according to their performance scores. (See Section 15.1.13 for a more detailed description of the World Bank’s allocation formula) The performance criteria and their weights in 2008 are shown in Table 12.3.2.

**Table 12.3.2: Center Performance Criteria and Weights, 2008**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(A) Results</strong></td>
<td></td>
</tr>
<tr>
<td>Achievement of MTP output targets (PMS 1)</td>
<td>05.0%</td>
</tr>
<tr>
<td>Science Council rating of Center-reported research outcomes (PMS 2)</td>
<td>12.5%</td>
</tr>
<tr>
<td>Science Council (SPIA) rating of the Quality of Impact Monitoring (PMS 3A)</td>
<td>10.0%</td>
</tr>
<tr>
<td>Science Council (SPIA) rating of the Quality of Two Impact Studies (PMS 3B)</td>
<td>07.5%</td>
</tr>
<tr>
<td>Sub-Total:</td>
<td>35.0%</td>
</tr>
<tr>
<td><strong>(B) Quality and Relevance of Current Research</strong></td>
<td></td>
</tr>
<tr>
<td>Peer-Reviewed Pubs. Per Scientist (Journals not listed in Thompson/ISI, PMS 4A)</td>
<td>02.5%</td>
</tr>
<tr>
<td>Peer-Reviewed Pubs. Per Scientist (Journals listed in Thompson/ISI, PMS 4B)</td>
<td>05.0%</td>
</tr>
<tr>
<td>Percent of publications co-authored with developing country partner(s) (PMS 4C)</td>
<td>04.0%</td>
</tr>
<tr>
<td>Sub-Total:</td>
<td>11.5%</td>
</tr>
<tr>
<td><strong>(C) Institutional Health</strong></td>
<td></td>
</tr>
<tr>
<td>Criterion</td>
<td>Weight</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Governance Score (PMS 5A)</td>
<td>10.0%</td>
</tr>
<tr>
<td>Peer review Panel rating of two Board Actions that Improved Oversight (PMS 5B)</td>
<td>05.0%</td>
</tr>
<tr>
<td>Rating on “Culture of Learning and Change” (PMS 5C)</td>
<td>08.0%</td>
</tr>
<tr>
<td>Diversity (incl. women in management and whether G&amp;D goals are in place) (PMS 5D-5G)</td>
<td>07.5%</td>
</tr>
<tr>
<td>Sub-Total:</td>
<td>30.5%</td>
</tr>
<tr>
<td><strong>(D) Financial Health</strong></td>
<td></td>
</tr>
<tr>
<td>Solvency/Reserves (days of expenditures) (PMS 6B)</td>
<td>12.0%</td>
</tr>
<tr>
<td>Efficiency of Operations (indirect costs ratio) (PMS 6C)</td>
<td>05.0%</td>
</tr>
<tr>
<td>Cash management in restricted operations (PMS 6D)</td>
<td>05.0%</td>
</tr>
<tr>
<td>Sub-Total:</td>
<td>23.0%</td>
</tr>
<tr>
<td><strong>(E) Stakeholder Perceptions</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Germany’s Use of the PMS Data**

Since 2005, Germany has also used some PMS information to allocate part of its monies for the Centers. Twenty-five percent of the German budget for “international agricultural research” is disbursed directly from the BMZ to the Centers (the other 75 percent is disbursed in various programmatic ways). The 25 percent that is allocated directly to Centers is allocated by formula. The formula gives 70 percent weight to the size of the Center (its costs) and 30 percent weight to some performance factors selected from the PMS. In future, Germany intends to increase the weight for performance from 30 percent to 50 percent.

**(2) Non-Allocation Uses of Performance Data**

The main use of the PMS, other than to guide resource allocations by donors, is to guide decisions by the Centers’ boards and management. Some influence is easy to see. When the “governance checklist,” for example, has named a particular type of policy, Boards have been quick to adopt an appropriate policy where one was lacking. For example, one of the indicators of institutional health is whether the Center has conducted a survey of staff satisfaction within the previous two years. Between the introduction of this indicator in 2005 and reporting in 2006, the number of Centers complying jumped from six to 12. In general it is plausible that Centers that receive low performance scores on a particular criterion have an incentive to improve. However, tracing those influences is beyond the scope of the Panel’s mandate.

Every year, the CGIAR Secretariat and the Science Council identify lessons learned from the most recent performance measurement exercise. In April 2008, Science Council recommendations to the Executive Council included:

- Strengthen the research publications indicators as measures of results

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Chapter 12 Managing for Results
• Make the number of “outcome statements” to be submitted by each Center dependent on its size
• Set performance targets (benchmarks) especially in regard to “publications per scientist”
• Smooth year-to-year variability by using three-year moving averages
• Simplify and combine the many sub-criteria in the categories of institutional health and financial health.

Additional recommendations stated: Strengthen the “output” indicator\textsuperscript{15} to minimize the perverse incentives generated that might lead Centers to set easy output targets; and consider carefully what other perverse incentives might be the unintended result of the PMS, including setting performance indicators low so as to ensure high achievement in the case of impact studies\textsuperscript{16} or by scheduling publications artificially to meet annual targets.

12.3.6 Performance of the Centers, 2004-2007

Intermediate Outcome Reporting and Scoring

CGIAR issues guidelines for reporting performance indicators every year, specifying the information to be provided by the Centers.\textsuperscript{37} The CGIAR Outcome definition (which the Panel regards as intermediate outcomes) is “the external use, adoption or influence of a Center output(s) (e.g. by partners, stakeholders, clients).” Each Center is requested to report “the five most significant intermediate outcomes documented” in the previous year resulting from outputs that it produced, with an explicit link to the Center’s Medium Term Plan (MTP). Each Center submits a description (maximum 500 words, increased from 300 words) for each intermediate outcome. The Science Council assesses each of the intermediate outcomes using a ten-point scoring system.

The quality of submissions varies. The most common form is a narrative of the “accomplishments” within a project or certain area. Some outcome statements describe the output and beneficiaries. Most outcomes reported are the result of many years of work, which limits the usefulness of annual comparisons. The best evidence tends to be provided when there has been a recent evaluation.

Publication Rates

CGIAR overall produced more publications in 2007 than in 2006 and improved its publication productivity per scientist. Peer-reviewed publications increased from a total of 2,249 in 2006 to 2,493 in 2007; and publication productivity per scientist increased from 2.01 in 2006 to 2.31 in 2007. In 2005 productivity was 2.13 publications per scientist.\textsuperscript{38} The range of publication productivity across Centers narrowed from (0.82-3.37) in 2005 to (1.35-3.5) in 2007.
The publication productivity in 2007 is roughly comparable with that of the World Bank’s Research Department (DEC), which achieved an average of 2.4 peer-reviewed publications per research staff\textsuperscript{39} annually in recent years.

Eco-Regional Centers had the highest publication rate per scientist, Commodity Centers the lowest. However, Commodity Centers have the highest ISI publication rate per scientist. Centers of other categories produce more non-ISI than ISI publications (Figure 12.3.2).

**Figure 12.3.2:** 2006-2007 Non-ISI vs. ISI Publications
A new indicator that weights a Center’s publications by the expected impact of the journals in which it publishes was piloted in 2006. The impact indicator is determined by the expected impact of a journal relative to the top three journals in its subject category. A Center’s journal impact factor is calculated from a sample of publications. CIAT and CIP achieved the highest journal impact scores; ICARDA and Africa Rice had the lowest.

**Figure 12.3.3:** Thomson/ISI Publications Per Scientist, Unweighted and Weighted by Journal Impact Factor, by Center Category

**Figure 12.3.4:** Publications per Scientist Weighted by Journal Impact
In 2007 IWMI produced most publications per dollar funding, with one publication per $120,000 budget. Bioversity is the least efficient by this measure with one publication per $360,000 budget (Figure 12.3.5).

**Figure 12.3.5: Budget per Publication**

<table>
<thead>
<tr>
<th>2007 Budget per Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>IWMI</td>
</tr>
<tr>
<td>0.00</td>
</tr>
</tbody>
</table>

**Best Center Outcomes**

Of the 75 intermediate outcomes submitted in 2007, ten (13 percent) received a score of nine or better out of a maximum of ten points. One received the maximum ten points. The intermediate outcomes receiving nine or higher points are as follows:

- Spatial Data and Knowledge Gateways project provides water related maps, models, and statistic for water use analysis (as a global public good). The data is widely used around the world and the project has won recognition and awards. *IWMI, (Score =) 10*
- Laboratory information management systems software for use in applied genomics was made available on the web in 2006 and has been used by partners. *ICRISAT, 9.8*
- Research organizations and universities in several developing countries across Africa and Asia are now utilizing new knowledge and skills from the ILRI-SLU (Swedish University of Agricultural Sciences) training program through the animal genetics training resource (AGTR) to re-design their training courses, influence their national livestock policies and develop breeding programs for livestock improvement in their countries. *ILRI, 9.8*
• The efficiency of breeding programs was enhanced through the use of small but specifically diverse subsets of the World Germplasm Collection of ICRISAT mandate crops, which are of a size to be functionally manageable by breeders, particularly NARS, globally. ICRISAT, 9.4

• A study (2006) comparing the impact of two World Vision Programs in Haiti found that one approach (preventing children from becoming undernourished) was more effective than another. The study resulted in the better approach being adopted in USAID and World Vision supported programs. IFPRI, 9.4

• IFPRI’s research on Pro-Poor Public Investment has produced several important findings, has been widely cited, and was used in the 2008 World Development Report to argue for a reversal of the declining trend of government budget allocations for agriculture. IFPRI, 9.4

• NARS in Bangladesh released a locally adapted salt tolerant variety (BRRI dhan 47), the first salt-tolerant variety available for farmers in south Bangladesh. Farmer intermediaries have started to disseminate BBRI dhan 47, but the number of farmers is limited due to seed supply constraints. IRRI, 9.4

• Advanced research institutes in Australia and the US started to use pre-screened rice mutants (an IRRI output) as a core resource to address the high susceptibility of wheat to the changing rust pathogens. IRRI, 9.4

• New ILRI research methodologies for identifying genes for disease tolerance in cattle are being used for identifying genetic traits affecting human health. ILRI, 9.2

• The potential and constraints of agroforestry for mitigation and adaptation to climate change is increasingly recognized by the international community. A series of publications gave ICRAF a voice in the international deliberations and raised attention to the crucial importance that trees in farming landscapes have with regard to adaptation and mitigation. World AgroForestry, 9.2

**Influences on Performance**

The Panel was very interested in what the Performance Measurement System (PMS) instituted by the CGIAR in 2005 has to say about the intermediate outcomes of the Centers’ work. It found, in the PMS, a rich source of data that was still evolving but was, nevertheless, very useful for anyone wishing to understand the performance of the Centers. The Panel was able, within its time constraints, to examine only a small part of the data on intermediate outcomes and publications. The data is worth further careful analysis in the future.
The Panel examined three performance variables: the Science Council’s score on each Center’s five most significant intermediate outcomes, the “per scientist” publication rates, and the frequency of shared authorship with researchers in developing countries. They also looked at whether larger Centers have a better performance record than smaller Centers.

Some caveats are in order. First, this is very preliminary analysis. Correlations do not necessarily imply causality. Second, the definitions of some PMS variables have changed significantly during the last three years, so comparisons over time are risky. This is especially true of the rating of intermediate outcomes by the Science Council. The rating method has changed substantially from year to year. Last, the dataset for 15 Centers over three or four years is small.

With these qualifications in mind it is, nevertheless, interesting to note that the recorded average score for intermediate outcomes has declined in the past three years. In 2005 the average intermediate outcome score was 8.08 (with a range of 4.7 to 10.0). In 2006 it was 7.6 (2-10); and in 2007 it was 6.22 (3.1-8.4). (Figure 12.3.6)

**Figure 12.3.6:** Average Outcome Scores, 2005-2007

![Average Outcome Scores, 2005-2007](source: CGIAR Secretariat, PMS Database, July 2008)

The simple explanation that the intermediate outcomes achieved by the Centers have declined is not plausible. More likely there are at least two factors in play. First, the Centers’ intermediate outcomes are achieved as the result of many years of work. The idea that they are achieved each year separately is not well conceived. In the first year of the PMS the Centers had a backlog of intermediate outcomes to draw upon and they probably selected the best. If so, some decline in scores in subsequent years, compared with the first year of scoring, is to be expected. However even this might be taking the observed differences too seriously. The scoring method changed quite a lot from year to year—from
two questions per intermediate outcome, to three questions, to a single scale rating. Whether changes in scoring methods contributed to the decline in performance scores is impossible to tell. In the Panel’s judgment, the more likely explanation is the first (“using up” the best intermediate outcomes stories first).

In 2007, the Science Council rated 73 percent (55 out of 75) of intermediate outcomes as higher than five out of ten. However a significant number were rated quite low, which should be cause for reflection by the Centers.

Figure 12.3.7: Distribution of 75 Outcome Ratings Submitted by Centers

Commodity Centers achieved the highest intermediate outcome ratings. This holds for the whole 2005-2007 period and for 2007 alone. Their average intermediate outcome rating for the three years was 7.9. Eco-Regional and NRM Centers follow second and third with 7.2 and 7.1. Policy Centers had an average intermediate outcome score of 6.75. Figure 12.3.3). This relatively low score is mainly due to Bioversity’s low intermediate outcome ratings in 2005 and 2007. However there is considerable unexplained variation. For example, NRM Centers seem to have had an outlier year in 2005, with an average intermediate outcome rating of 9.0 compared to 6.3 and 6.1 in 2006 and 2007. Policy Centers had an outlier year in 2006 with an average intermediate outcome rating of 9.0 compared to 6.0 and 5.2 in 2005 and 2007.
The best performer in 2007 was IRRI (intermediate outcome rating of 8.4), followed by IWMI (8.0) and CIP and ICRISAT (7.8). Some Centers received much lower scores. These are remarkable differences and one has to ask whether they reflect true differences in effectiveness or are the result of differences in the type and accuracy of the method of assigning scores to outcomes of different types (crop, NRM and policy, for example).

There is no relationship between the size of a Center measured by budget and its intermediate outcome ratings. A simple linear regression with 2005-2007 average intermediate outcome ratings and budget size delivers a trivial coefficient of 0.02 and no significance.
Figure 12.3.10: 2005-2007 Average Outcomes and Budget by Center

2005-2007 Average Outcomes and Budget by Center

2005-2007 Publications per Scientist and Intermediate Outcome Ratings

The relationship between intermediate outcome ratings and publications per scientist over the period 2005-07 is interesting. A simple linear regression delivers a high positive coefficient of 0.55, but is not statistically significant given the number of data points. It is noteworthy that Commodity Centers achieve the highest intermediate outcome ratings and have the highest number of Thompson/ISI publications-per-scientists, but have the lowest number of total publications per scientist.
In 2007 there is a significantly negative relationship between a Center’s intermediate outcome ratings and its “efficiency,” measured in overall budget per publication. The more a Center spends per publication the better its top five intermediate outcomes tend to be ranked. However this relationship is not particularly strong and, overall budget per publication is a crude measure of efficiency.

Figure 12.3.12: 2007 Outcomes and Budget per Publication

Slope = 8-12.9x
\text{t-value of slope} = -2.04
R^2 = 0.24
In 2007, “publications per scientist” is significantly positively related to intermediate outcome ratings. That is, Centers that publish a lot also produce highly rated intermediate outcomes. The regression analysis also indicates that the quality of productivity matters, since publications in more prestigious journals have a larger positive relationship with intermediate outcome ratings than publications in less prestigious journals. To simplify somewhat: good science does produce good development outcomes.

12.3.7 Conclusions on the Performance Measurement System

(A) PMS Objectives and Achievements

The PMS has several objectives. They are listed below, each followed by a summary assessment by the Panel of the degree of achievement of the objective.

1. To be a learning tool for each Center to manage its own performance and to be able to compare its performance with benchmarks among other Centers.

Achievement? The PMS needs to be better positioned as a learning tool for the Centers, as well as an accountability tool. It should be transferred to the new Consortium proposed by the Panel, giving it a better chance to be truly a tool for strategy-management by the Centers’ leadership. In this context it needs to be linked with the network’s goals that are set out in an overarching strategy.

2. To facilitate transparent reporting and accountability to CGIAR stakeholders.

Achievement? At present the PMS is primarily a reporting and accountability tool and, within its limited scope, it is a good start. Its “results orientation,” however, needs significant improvement.

3. To complement other evaluation instruments (mainly EPMRs and CCERs).

Achievement? The timing of the PMS (annual) complements the EPMRs (every five years). As well, the PMS data, particularly improved outcome ratings and governance ratings, should gradually become an increasingly important source of information for the teams conducting EPMRs. Progress and prospects seem good.

4. To provide standard performance data that can be aggregated up to the System level.

Achievement? The PMS data can be aggregated to the System level. However, simple aggregations are not very instructive because the 15 Centers are so heterogeneous. A more sophisticated analysis of the performance data and the factors that appear to influence performance is needed. Also, the Centers are not the whole “system.” The PMS should be expanded to cover the other system components as well.
5. To be an input to funding and other decisions by CGIAR Members.

Achievement? The PMS data is used by the World Bank, and by Germany, to allocate some monies among the Centers. This provides an incentive for the Centers to take the PMS seriously. The World Bank has assigned weights to each of the PMS criteria. These are not consensus weights. The Centers and other donors should be consulted to see whether it is possible to develop consensus weights. These will be necessary if a major new pooled Fund is established and its monies allocated partly by performance.

6. To be an early warning system for problems and weaknesses.

Achievement? The PMS needs to be linked systematically with a “red flag” system to make Centers at risk more visible. Financial data needs to be collected and analyzed more frequently than annually—probably quarterly.

To summarize: In the past five years the CGIAR and its affiliated Centers have made considerable progress in annual performance measurement. The principles stated by the Science Council in 2002 have been followed with some success. The stakeholder survey was less successful because of difficulties of a purposive sample and a low response rate. The Performance Measurement System may be even more important in future if there is a substantial Pooled Fund that allocates monies to Centers and Programs partly according to performance.

Summary Findings

1. The Performance Measurement System is still evolving. It is too soon to be able to analyze trends in the performance data over time. This is partly because three years is a short time series and partly because the definitions of variables have changed significantly from year to year as lessons were drawn and the system is being improved.

2. Performance is highly variable across Centers and for each single Center across time. The significance of these variations should be analyzed further as data is accumulated over the next several years. So far it seems that Eco-regional Centers have had the highest publication rate per scientist and Commodity Centers the lowest. However, Commodity Centers have the highest Thomson/ISI publication rate per scientist. Commodity Centers achieved the highest intermediate outcome ratings, and Policy Centers the lowest. Therefore it seems that the best science is associated with the best development outcomes, but one should not over-interpret the data while it is still very limited. Weighting “publications per scientist” by journal impact (one year of data only) does not seem to change the ranking of Centers much, but this deserves further investigation as well.
3. Within the limitations of the existing data there are indications of strong performance by many Centers. CGIAR overall produced more publications in 2007 than in 2006 and improved its productivity per scientist. CGIAR’s 2.31 peer-reviewed publications per scientist have not been benchmarked against comparable institutions. However, their average publication rate is similar to that of the World Bank’s Research Department (DEC), which averages about 2.4 peer-reviewed publications per researcher per annum. On the other hand, the average “intermediate outcome ratings” of the Centers has declined substantially between 2005 and 2007 but this does not seem to be a real decline. It is more likely an artifact of changes in the measurement system, and the nature of the variable, rather than a real change in network performance.

4. The greatest weakness in the data relates to the measurement and reporting of results.
   a. At the “output” level, publications are extremely important to global public good because the sharing of knowledge is basic to production of the public good. However, a greater effort needs to be made to conceptualize other significant results. The Performance Measures should give Centers as strong an incentive as possible to make their research available and useful for development, in line with the “global public good” concept on which the CGIAR is based.

   b. At the intermediate outcome level, not only publications but also use of those publications should be monitored (citations, website hits, downloads, etc).

   c. At the outcome level the “five best outcomes per annum” approach appears to have insurmountable flaws as a reliable picture of Center performance in a particular year. First, it is too selective. A Center might have five excellent outcomes but be mediocre overall (although the Panel doesn’t take this point too seriously—most likely five excellent outcomes do indicate excellent Center performance, although uncertainty remains). There must be a better resting point somewhere between listing five best outcomes and the impossible task of listing all outcomes for the year. However, the Panel doubts that demanding a different number of outcomes according to Center size is a viable approach. It is too mechanical and, likely, superficial an idea. In summary the Panel suggests that each Center be invited to present its outcomes within its results-based framework each year and that the Science Council rate the Center on the basis of this presentation.

   d. At the impact level, some attempt needs to be made to assess actual impacts, not just “impact culture.” There needs to be more work on a system-wide results framework and harmonized Center-specific results frameworks within which outcomes and impacts can be better judged. It is proposed that an actual measure of impact will be developed for presentation at AGM08. The Panel applauds this intention while not underestimating the difficulty of measuring impact. It may be
that impact is best addressed by an independent evaluation unit, not annually but as part of the three-year strategy and funding cycle discussed elsewhere in this report.

5. Despite its limitations the PMS data is being used to allocate part of the World Bank monies to Centers. This may become even more important if a similar system is used to allocate monies from the pooled Fund advocated by the Panel.

6. In the opinion of the Panel, the results indicators, as compared with the other indicators of performance in the PMS, should be given more weight than the World Bank presently accords it in its allocation system.

7. Performance measurement and management should be the responsibility mainly of managers, not donors. Therefore the PMS should be the responsibility of the Consortium in the new governance structure suggested by the Panel. Centers should take more responsibility collectively for monitoring performance and using performance information for management purposes.

8. Some performance indicators need further thought to avoid setting up perverse incentives. For example, the Centers lose points if their “long-term financial stability (adequacy of reserves)” is above a certain modest level. This produces a disincentive for Centers to build an endowment that would help stabilize their finances.

9. Performance accountability should be mutual—not “one way accountability” from the Centers to the donors. Therefore, the PMS Annual Report should report the performance of all components of the Network/Partnership, individually and as a whole, including the performance of member/donors, ExCo and the System Office.

10. The use of PMS data should be more analytical. What factors influence or hinder good outcomes? The first step towards a more intelligent use of the PMS data is to produce and maintain a single integrated database with standard record layout for each Center and for each year. To facilitate analysis of the factors that affect performance, it would be necessary to include descriptive data about the Centers (explainers or “independent variables”) as well as performance data.

11. The design of the Stakeholder Survey should be re-thought before the next version in 2009. Target stakeholders should be defined better and sampled more rigorously, and procedures should be put in place to obtain a high response rate.
Notes

3 Ibid
10 Ibid.
11 Science Council (2007).
20 There were two other major conferences including the 2003 Rome Declaration on Harmonization see www.airdharmonization.org; and Marrakech Roundtable on Results 2004 and Vietnam Roundtable in 2006 both on core principles for applying good practice results. The OECD-DAC Working Party on Aid Effectiveness oversees the process of ensuring progress on the Paris
Declaration agreement. Annual reports and recent evaluation are available on the OECD-DAC website.

21 See also: OECD/World Bank Source Book: Emerging Good Practice in MfDR. MfDR is management strategy focused on development performance and sustainable improvements in country outcomes. It provides a coherent framework for development effectiveness in which performance information is used to improve decision making, and it includes practical tools for strategic planning, risk management, progress monitoring and outcome evaluation.

22 This comes from a PowerPoint presentation made by Dr. Dutch Leonard, Kennedy School of Government, Harvard University to the World Bank circa 2002.


29 www.cgiar.org/pdfs/agm05/agm05_pm_lessons.pdf


32 The performance factors are chosen on the basis of priorities indicated by German development policy, namely: the SC/SPIA rating of impact assessment culture; the SC/SPIA rating of two impact studies; staff satisfaction survey; the average number of training days for IRS; the average number of training days of NRS; and the percentage of women in management.


35 See the following two documents: http://cgiar.org/exco/exco14/exco14_sc_pm.pdf


38 The number of scientists per Center was not available for 2005, so that the total number of publications could not be calculated.
Research staff is defined as GF-level staff and above that work on research in DEC. DEC also tracks citations which could be a useful additional indicator to CGIAR’s PMS to track the impact of research.

In 2007 the SC rated each intermediate outcome separately, so that the Panel has 75 intermediate outcome ratings, 5 per Center. In prior years the SC only gave one rating per Center, based on sets of yes/no ratings for each intermediate outcome. In 2005 Centers were rated on a 15-point scale, based on 3 yes/no questions per Center. For this analysis all 2005 intermediate outcome ratings have been divided by 1.5 to fit a 10-point scale. The 2007 guidelines for intermediate outcome ratings are the most developed. Going forward it would be good to keep them in their current form to allow for cross-temporal comparability.

This data is only available for 2007. In 2005 and 2006 the SC only gave a combined score for a Center’s 5 best intermediate outcomes, but did not rate individual intermediate outcomes on a 10-point scale.

CHAPTER 13
GOVERNANCE 2001-2008 AND BEYOND

13.1 Governance in the CGIAR: Looking Back and Learning

13.1.1 Governance: Assessing the CGIAR

As is clear from Box 13.1.1, there is no single, agreed definition of governance among international development agencies. In general, however, there is convergence that governance entails the exercise of power and authority in decision-making and in wielding influence to achieve the goals, objectives and vision of a system or organization. It follows that measurement of governance performance in a system or organization needs to take careful account of the structure and effectiveness of power and authority.1

Box 13.1.1: Some Definitions of Governance2

“GOVERNANCE is the exercise of political, economic and administrative authority to manage a nation’s affairs. It is the complex mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights and obligations, and mediate their differences.” (UNDP)

“GOVERNANCE is the manner in which power is exercised in the management of a country’s social and economic resources for development. Governance means the way those with power use that power.” (Asian Development Bank)

GOVERNANCE is “… the traditions and institutions by which authority in a country is exercised for the common good. This includes (i) the process by which those in authority are selected, monitored and replaced, (ii) the capacity of the government to effectively manage its resources and implement sound policies, and (iii) the respect of citizens and the state for the institutions that govern economic and social interactions among them.” (World Bank)

Since the 1990s, ‘good governance’ has become an integral part of the development thinking and practice. Developing countries and development organizations are increasingly measured against this criterion. Yet, it remains a conceptually imprecise notion and, because of this, the means to assess good governance are unclear and inadequate.

Despite these difficulties, during the last decade there have been significant conceptual and practical advances to clarify what “good governance” means. This provides a basis for evaluating the performance of the governance practices of international bodies such as the CGIAR.

There have also been some important previous reviews of global partnership programs on which to draw. The World Bank’s independent review on the effectiveness of 26 of its largest global programs, including the CGIAR has been, to date, the most comprehensive
of these. The Bank’s review found no standard model for either governance or management. The review did find that the most successful programs were those based on country-led action and ownership by the partnership organizations. At the conference held to follow-up on the review, the key governance conclusions were summarized as follows:

“ (There is ) basically a tension between (1) the modern, shall we call it the Paris agenda, of putting ownership as the absolutely key determinant of what is central for development, leading to the demand for harmonization of donor procedures, alignment with country systems, no more flag planting and flag waving, and a genuine belief that things will not happen unless they’re genuinely owned by the countries where the results have to take place, and (2) the practices of the global programs which seem to be dealing with development challenges in a very old-fashioned and ill-considered way.”

This Review has applied these conclusions to its examination of the current CGIAR governance. In particular, it drew on the principles of the Paris Declaration for the design of its recommendations for governance changes.

13.1.2 Why is Governance Reform Needed?

When it was founded in 1971, the CGIAR was modeled on the country consultative group practices of the World Bank. The core elements of the model were that the Bank would convene interested donors, often on an annual basis, to exchange views, coordinate development assistance and pledge financial assistance to the project and program proposals of a developing country. A formal legal structure was not required. The groups relied on informal decision-making arrangements that found, in the last instance, tangible expression in financial and technical resource flows to the developing country. The World Bank provided the analytical support required to assure the donors that the proposed investments were technically sound and financially viable.

Establishing the CGIAR involved institutional innovations that extended the conventional “consultative group” model in three directions. First, the CGIAR focused on the specific theme or subject of agricultural research rather than a country. Second, instead of the usual single country, the immediate beneficiaries of the resources mobilized through the consultative group were four research Centers in different developing countries. Third, CGIAR created an independent special Technical Advisory Committee (TAC) to provide scientific and technical support rather than relying exclusively on World Bank staff to do so.

Since the simple model of its beginning, the CGIAR model today is so complex that a previous Executive Council member said it took him his whole term to understand it. The number of donors, research Centers, offices and committees has increased significantly. Governance structures evolved and adapted without modifying the basic
assumptions that underpin a consultative group. For illustrative purposes, five distinct stages in the evolution of the nature, context and challenges of CGIAR governance may be posited (See Table 13.2.1). The stages reflect the vicissitudes of the CGIAR and the challenges they have created for its governance.

From 1971 until the early 1980s, financing grew rapidly, along with the more general increase in development financing for agriculture which reached 17 percent of total Official Development Assistance (ODA) in 1982. Since the early 1990s, however, the CGIAR has experienced protracted difficulties and regular crises. The share of ODA for agriculture declined steadily from the 17 percent high to less than 2.9 percent in 2006. By 2003, the volume of assistance (expressed in 2002 prices) had declined from $6.2 billion US to $2.3 billion US. Over the same period, multilaterals cut ODA spending on agriculture from $3.4 billion US to $0.5 billion US (a decrease of 85 percent). The fortunes of the CGIAR were directly affected by these reductions.

Box 13.1.2: Five Stages of CGIAR Governance

<table>
<thead>
<tr>
<th>STAGE</th>
<th>Key Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Pre 1971</strong>&lt;br&gt;Before the CGIAR</td>
<td>• Only four Centers, IRRI, CIAT, IITA and CIMMYT, financed by Ford and Rockefeller Foundations.&lt;br&gt;• Boards comprised of persons appointed by the foundations.&lt;br&gt;• Small boards (9-12 members) of mainly leading international agricultural and biological scientists, all in personal capacities. Singular governance task of Boards - to support scientists to do good science. Financial management and fiduciary oversight handled directly by the Foundations.</td>
</tr>
<tr>
<td><strong>2 1971-1990</strong>&lt;br&gt;The Golden Age of the CGIAR</td>
<td>• Boards decided by CGIAR nomination and/or by board self-renewal.&lt;br&gt;• The size of boards increased to average of about 16; still mainly scientists. Focus of governance still mainly supporting scientists with resources and freedom for research, but financial oversight increased. Little direct accountability to donors and no systematic results measurement and reporting.&lt;br&gt;• Financial resources grow rapidly and provided mainly as unrestricted core.&lt;br&gt;• Number of Centers increases from 4 to 18.&lt;br&gt;• Wide variability in governance between Center Boards.</td>
</tr>
<tr>
<td><strong>3 1990-1998</strong>&lt;br&gt;The End of Eden</td>
<td>• Sharp decline in funding both to CGIAR and agriculture as a whole.&lt;br&gt;• Donors increasingly concerned with accountability - Restricted funding rises to roughly 40 percent of total.&lt;br&gt;• 1993 – ‘Oversight Committee’ established (a significant step towards centralized governance). It reports “uneven performance” across Center Boards.&lt;br&gt;• 1995 – Lucerne Summit aims to “stop the financial decline and place the system on a more solid and sustainable footing”. Proposal to formalize CGIAR as a single organization under unified governance structure not adopted. Summit does not reverse financial deterioration.&lt;br&gt;• 1997 – Pressures for more centralized governance and controls; 7 reference guides issued for Centers and Boards, including “The Role, Responsibilities and Accountability of Center Board of Trustees”.&lt;br&gt;• 1998 – Third System Review proposes executive Board of donors with no voting rights for Centers (rejected by Centers).</td>
</tr>
</tbody>
</table>
Following twenty years of continuous program growth and budgetary expansion, the CGIAR confronted a major financial crisis in 1993 and 1994. Besides real and nominal declines in overall financing, the percentage of total funding on a core or unrestricted basis declined and the CGIAR became increasingly dependent on contributions tied to individual projects.

**Figure 13.1.1: ODA to Agriculture 1995-2006**

Since the mid-1990s, the main preoccupation of the CGIAR System has been to reverse this situation with the goal of achieving adequate, stable and predictable financing. There
have been many, sequential initiatives through crisis summits (Lucerne, 1995), System reviews, task forces, visioning exercises, management change exercises, the establishment of new governance structures (the Alliance), the transformation of established institutions (the TAC into the Science Council) and the merging of some Centers. All of these included, in one form or another, a focus on governance reform as central to CGIAR prospects. If measured against the goal of adequate and stable financing, however, the net result of all these efforts has been disappointing. In 1995, total CGIAR income was $343.5 million US, of which just over half (53 percent) was unrestricted. In 2006, total income was $426 million US (less that $300 million US in 1995 dollars), of which only 42.5 percent was unrestricted.

The decline in the volume of financial support for the work of the CGIAR in the 1990s may be attributed, in part, to the decline of over 30 percent in ODA from 1992 to 2001. Between 2002 and 2007, however, ODA doubled, while support to the CGIAR, measured in real terms, remained static and the proportion of restricted financing remained at approximately 55 percent.

The financial difficulties of the CGIAR are compounded by changes in the international agricultural research context that raise concern about the CGIAR’s continuing relevance and value. The CGIAR’s own capacity in crop biotechnology and breeding is increasingly matched by research in Brazil, Russia, India, and China (BRICs), and by growing private sector activity, while IPR issues challenge the boundaries of the CGIAR’s public goods mandate. At the same time, the CGIAR’s focus on sustainable agricultural production is more location specific, reducing opportunities for spillovers of technology from one region to the other, reducing the scale of recent impacts and raising question whether these outputs could be more cost effectively delivered by more local institutions.

Balanced against these considerations, however, there are many factors that point to a continuing – if not a greater – need for the global agricultural research capabilities of the CGIAR. There is conclusive evidence that global food production is growing more slowly and that there are growing stresses on existing production techniques and cropping patterns because of climate change and urbanization. Clearly increased output through productivity gains will be essential to meet needs arising from the combination of increasing population and income growth and new patterns of demand for livestock products, higher value crops and biofuels. The urgency for new agricultural technologies and innovations has never seemed more apparent. The 2007 report of the Inter-Governmental Panel on Climate Change concludces that by 2020, without new technologies and innovations the world will confront an unparalleled food crisis. These factors indicate a need for interconnected international knowledge, including research, systems and a potentially stronger future role for the CGIAR.

Thus, the CGIAR finds itself today in a context of deep paradoxes. Its level of financial resources has remained stagnant and while ODA financing has doubled. The nature of
much of its financing also continues to decrease in stability and predictability while other development entities such as the African Development Fund and IDA achieve multi-year financing increases of up to fifty percent. While the urgency for new agricultural technologies to address the uncertainties of climate change would appear never to have been greater, a major role for the CGIAR in helping to meet this challenge is today anything but assured.

These issues are the central challenge confronting the governance of the CGIAR. Its current governance structures, however, are ill-suited to the challenge. The successive reviews and reform efforts of the past fifteen years have all underscored the reality that System-Wide governance arrangements are cumbersome and ineffective. They are driven by inertial forces that do not allow for decisive decision-making, strategy formulation or presentation of a corporate identity. The whole is less than the component parts. The performance of CGIAR governance has generated a widely shared sense of disquiet and frustration which has led to the current reform effort, the main focus of which involves fundamental questioning of current System-Wide governance.

Governance reform for the CGIAR is not optional. Without it, the CGIAR will erode its comparative advantage and become increasingly marginal to the new context of global challenges for agricultural development, food security and poverty reduction.


When the CGIAR and its four Centers were founded in 1971, its task was singular and unequivocal: to apply the world’s best and most advanced science to increasing food production in developing countries. The Centers, located in developing countries, were linked to the leading institutions of agricultural science in North America and Europe. The strategies and the agenda were exclusively scientific and the countries and organizations financing the CGIAR required only that scientists apply their science. Tolerance for failure (i.e., for experiments that did not work) was high. There was an appreciation that good science required time and patience. The task of governance was essentially to ensure the finances and enabling environment that would allow scientists to work without constraints or serious limitations.

Today CGIAR funders demand that research programs and priorities be established through “multi-stakeholder consultations,” that research demonstrate direct causal and short-term linkages to poverty reduction and policy reform. They demand frequent and detailed performance reports on an increased number of discreet projects. These stresses underlie attempts to reform governance structures and procedures. In 1993 the CGIAR formed two standing committees, an Oversight Committee and a Standing Committee. During the same period, two livestock Centers (ILCA and ILRAD) were merged into a single Center (ILRI) and the INIBAP was brought under the administrative umbrella of
IPGRI (now Biodiversity7). So serious was the deterioration of the overall financial situation that, in 1993, the TAC commissioned a restructuring study8 to enable the System to operate at a lower level of funding. In 1994, however, the new CGIAR Chair halted this process by obtaining a one-time-only financial transfusion from the World Bank, matched by other donors. The draft restructuring study was kept confidential.

13.2.1 The Lucerne Summit 1995

Having achieved a short-term financial reprieve, the Chair then initiated a valiant attempt in 1995 “to save the CGIAR.”9 A “Ministerial-Level” meeting was convened in Lucerne to consider organization and funding. Few Ministers responded to the call and only one from an OECD country attended. The effort, however, did achieve an increase in the number of contributing developing countries. There was also a significant change to the financing role of the World Bank (see Chapter 9). With regard to structure and governance, however, the “Lucerne Declaration and Action Program”10 included few modifications of any importance. The Declaration specifically recommended against any immediate structural changes. If these were to occur, the declaration stated, they should be on an incremental basis. It also suggested a few modest steps to increase CGIAR “inclusiveness” and strengthen oversight, including: (i) largely unspecified actions “to strengthen the ad hoc decision-making structures of the existing informal network and partnership,”11 (ii) broadening membership among developing countries; (iii) establishment of NGO and private sector committees; (iv) strengthening of the Technical Advisory Committee; and (v) an independent evaluation function to be established that would report to the CGIAR as a whole (this was never acted on).

13.2.2 Third System Review (1996-98)

The absence of closure on a viable governance structure was one factor that led to the launch of a System-wide review in 1995, which reported in 1998. It made 29 main recommendations, of which more than half were on governance and finance.12 It endorsed four of the five founding principles of the CGIAR (donor sovereignty, Center autonomy, non-partisanship and independent technical advice) but concluded that the fifth founding principle, (consensus decision-making) through ad hoc informal committees, had become incompatible with the realities of the new CGIAR context.

Despite this, the report provided little analysis in support of this conclusion or of its radical recommendation to restructure the CGIAR as a vertically-integrated corporate entity governed by a central Board of 26 members. The Centers themselves were to hold two ex officio non-voting positions on the board.13 The 143 page report devoted only a single page to this matter. The brevity on this critical issue contributed to confusion at several levels.
First, some key issues related to transition to a single entity, including issues of autonomy and ownership, assets and host country agreements, were not addressed. These are not trivial matters if the central entity was to assume ownership of intellectual property; germplasm and other assets that were held by the 16 separate legal entities then in existence (the Centers).

Second, it was recommended that the CGIAR (presumably the donor members) should elect a central Board that would then create a legal entity. This is confusing in that normally a legal entity is created first by its owners and a Board is then constituted, according to by-laws, to govern that entity.

Third and most critically, the proposal for Board composition would have limited representation of the Centers to two ex officio, non-voting, representatives (namely a representative of the Committee of Board Chairs and a representative of the Center Directors Committee). The implicit assumption that the independent Centers would voluntarily relinquish governance and all decision-making authorities to a central corporate entity proved unfounded.

The CGIAR Mid-Term Meeting, (May 1999), rejected the governance recommendations of the Third System Review because of the absence of any assurances the interests of the individual Centers would be protected. The decision statement says that the CGIAR “expressed reservations about the Panel's recommendations to establish the CGIAR as a legal entity, eliminate the co-sponsor status of the UN agencies that founded the CGIAR, and appoint a full-time Chairman who also acts as Chief Executive Officer [. . .]”. Among other stated reasons for rejection were the Panel had not made a convincing case, with options and criteria; that some members were not willing to give up their sovereignty; and some were uncertain about the legal obligations and potential complexities of the proposed arrangements.

13.2.3 TAC Visioning Exercise (May 2000)

In 2000, the Technical Advisory Committee (TAC) led a "visioning exercise." Its mandate was to examine the kind of central governance the CGIAR and Centers might reasonably institute, taking into account the rejection of the Third System Review recommendations. At the same time, the CGIAR asked the Centers to consider the need for institutional change. There was an electronic conference on governance and structure. The Technical Advisory Committee (TAC) produced a vision with seven planks. The CGIAR endorsed the seven planks but these were all of a highly generic nature such as people and poverty focus, modern science, and geographic priorities. They provided no linkages to concrete structural or governance requirements, no attention to means-ends imperatives and no basis for resolving the deepening financial difficulties of the CGIAR.
13.2.4 Synthesis Group (October 2000)

Following the unsuccessful visioning exercise, the Chair of the Oversight Committee attempted to move matters forward by convening a working group that came to be known as the Synthesis Group. The Synthesis Group divided into four working groups, one of which was on governance. At the same time and with the obvious intent of promoting a consensus, the CGIAR Chair asked the Committees of Board Chairs and Center Directors (CBC/CDC) to recommend a governance structure. The Synthesis Group produced a report entitled “Getting On With It” (October 2000). The title speaks to some frustration with the paralysis that had resulted from prior efforts. The report recommended that a decision be taken by the Centers on whether to establish the federation that they had proposed two months earlier. It also recommended that a change management group be set up to help implement the Federation model and to work to reform the structural organization of the Centers.

The proposal of the Centers’ Board Chairs and Directors General (CBC/CDC) was to form a federation with a board to be comprised of nine to eleven elected persons, none of whom would be sitting Center DGs, Board Chairs or representatives of donors. Thus, while the Third System Review had recommended a central Board with no voting representation from the individual Centers, the CBC/CDC recommended a new federation board with no voting representatives from the donors.

The Centers modified this one month later (October, 2000), proposing equal representation of Centers and donors (3 each). This proposal for a balanced federation Board was to be presented to the International Centers Week 2000 (Annual General Meeting). At that meeting, however, the Chair tabled a paper entitled “Charting the Future of the CGIAR – Guidelines for Next Steps” and discussion shifted to that paper. The Chair pointed to concerns over ambiguities in and the potential for negative consequences from the proposed Federation Board, including the organizational fit with other components of the System and the extent to which the proposed governance structure would provide accountability to shareholders, with appropriate legal status, role, function and composition of a Board. He questioned the level and form of expected efficiency gains and cost reductions, and called for greater clarity on specific functions of the federation, sources of funding and adherence to the principle of subsidiarity. To address such issues, the Chair committed to bringing forward an “Action Plan” at the mid-term meeting in 2001, and announced the formation of a Change Design and Management Team.

13.2.5 Change Design and Management (2000-2001)

An external Chair led the Change Design and Management Team (CDMT). The Team was supported by a 15 to 20 person Steering Group and was assigned a sweeping mandate to produce:
(i) a restructuring plan for the entire CGIAR System with a clear rationale for program integration and/or consolidation of Centers (including analysis of options);
(ii) a governance plan to streamline CGIAR decision-making and clarify the roles of all components (including co-sponsors, the Consultative Council and other committees) and bring net efficiency gains; and
(iii) a business plan to increase efficiency in the provision of common services, coordinate System-Wide programmatic activities and reduce Center and system overheads in order to transfer more resources to research.

The CDMT presented its report to the International Centers Week in October 2001 (the first such meeting to be called Annual General Meeting). The report’s overall appraisal of the situation amounted to an indictment of governance failure:

“At present, most decisions default to mechanisms (committees, TAC, and Secretariat) which either lack authority or comparative expertise. Multiple committees examine the same issues. Decisions are not strongly binding on either shareholders or the Centers and there is no mechanism for following up decisions taken and hence no clear accountability for success or failure.”

The CDMT concluded that, while there was a strong consensus on the need for structural realignment or Centers, there was no consensus on what that should entail. Thus, the CDMT report proposed “transformation with renewal” and made a wide range of recommendations including:

(i) strategic focus (e.g., establishment of large-scale “challenge programs” to focus the CGIAR as a System on major problems and to act as the catalyst to a sharpened focus on a much smaller range of issues and as a springboard to future structural changes),
(ii) financing (e.g., expansion of multi-year financing with a regular replenishment model and diversification of financing, including donations in kind),
(iii) partnerships (e.g., heightened focus on NARS with attention to capacity building and division of labor),
(iv) efficiency gains (e.g., establishment of an Executive Council to streamline decision-making and a System Office to promote alignment and provide consolidated support to the entire CGIAR), and
(v) reinforcing the scientific strengths of the CGIAR to include an upgrading of the TAC to a new Science Council.

Given the absence of consensus on restructuring, the report affirmed mergers as “imperative,” but recommended a sequenced approach to achieving this. Specifically, it recommended that:

“(a) The CGIAR should adopt an evolutionary restructuring approach which will follow from the implementation of the change proposals,
(b) *The CGIAR should set aside funds to encourage voluntary restructuring, i.e., finance the costs associated with clusters or mergers."

The CDMT sought to open the spaces needed for evolutionary processes that would build confidence and lead to significant structural changes. Unfortunately, follow up of this proved incomplete and selective. The incentives for change and restructuring that it recommended never materialized. Reliance for decisions continued to depend on multiple layers of *ad hoc* committees and work groups, all acting without clear responsibilities and without the backing of appropriate authorities or accountability. Specifically:

- The new Executive Council was not the Board of a new legal entity and was not empowered as a decision-making body. It took on some functions that are normally Board functions but was structured largely as a caretaker institution acting between AGMs and with authority only to refer decisions, not to make them. Also it was comprised almost entirely of donor and co-sponsor representatives, with only minimal representation from the Centers. In this it bore resemblances to the earlier proposal for a vertically integrated single-corporation governance structure proposed by the Third System Review (but without decision-making responsibilities and accountabilities). It was clearly at fundamental variance with the “federation” structure that had been proposed by the CBC/CDC.

- The Science Council was assigned ambiguous responsibilities of advisor on science and evaluator of performance. The CDMT’s concern that, in the absence of clear leadership “*most decisions default to mechanisms*” is born out in the complex processes established by the Science Council to deliver System Priorities and Challenge Programs, which have not as yet led to a clear and broadly owned science strategy for the CGIAR. (For a more complete examination of the Science Council, Challenge Programs and System Priorities, see Sections 6, 8.2 and 12.1 of this report, respectively).

In the end, the evolutionary process did not work and inadequate follow through resulted in an additional proliferation of rootless organizational mechanisms across the CGIAR System.

### 13.2.6 World Bank Studies

In 2003, the World Bank’s Operations Evaluation Department (now called the Independent Evaluation Department) completed a Meta-Evaluation of the CGIAR. In a sense, the report, *The CGIAR at 31* picked up where the CDMT left off. It directly questioned the sustainability of CGIAR governance under the three founding principles of Center autonomy, donor sovereignty and consensus decision-making. *CGIAR at 31* suggested the first two principles had led to narrowly self-interested behavior; and that consensus decision-making had led to unclear and unaccountable decision-making. It expressed
concern over “mission creep” that had moved the CGIAR into policy and natural resource management areas and urged a return to “research basics” and cautioned against starting new Challenge Programs until the existing pilot programs had proved themselves. As well it suggested that there was a conflict-of-interest in the World Bank in that it is a major donor and, at the same time, plays a central role in managing the CGIAR System. Finally, it recommended consideration of the CGIAR as a legal entity and adoption of a Charter.

The recommendations of the report produced few modifications. A CGIAR Charter was adopted at the end of 2004, but adherence to it was stipulated as voluntary. Paradoxically, the Charter refers to member “obligations” but adds that these are “not mandatory”. Members examined the costs and benefits of establishing the CGIAR as a separate legal entity, but could not reach a consensus and so no decision was taken. ExCo membership has not been changed and significant mergers, which the CDMT assessed as imperative, have not occurred. New Challenge Programs proceeded before completion of the pilots; the World Bank has continued its dual role as manager and principal donor roles; and further ad hoc layers of committees have been added.

13.2.7 Sub-Saharan Africa (SSA) Task Force 2003-2005

At the AGM 2003, the CGIAR commissioned a major study of CGIAR’s role in Sub-Saharan Africa (SSA). As had been the case for the CDMT, a very broad remit was given. The Task Force was asked to recommend a rationalizing of CGIAR work, including:

(a) programmatic directions, structural or governance requirements
(b) ways to make research funds more cost-effective. The guidelines for the study also called specifically for major change, stating that: “Serious change is needed. Marginal and incremental changes will not suffice.” The guidelines also stated that: “Change within the CGIAR should be meaningful, deliberate, timely, homegrown, practical and doable. However homegrown reform should be balanced with external ideas, which could also include viewpoints from the private sector.”

Eighteen months of work produced two multi-stakeholder surveys. From these, the Task Force report concluded:

- CGIAR work in SSA was deeply flawed
- the core issues were structural in nature
- continued CGIAR relevance in SSA would require radical changes to core governance structures.

The report stated:

“…there is no System vision for CGIAR in SSA, a large portfolio of un-coordinated CGIAR efforts, over-burdening of NARS, overlap of some Center activities, lack of integration mechanisms for Centers, a large number of projects that would have difficulty in qualifying as global public good
(GPG)-producing research, and inter-Center disputes on mandates. In short, the problem faced is less programmatic; the core of the problem is structural. Even if one looks at programmatic alignment, the key concern is how to achieve alignment within the CGIAR itself.”

The SSA recommended consolidating the 16 existing Centers into a single global corporate entity. For SSA, a step-wise process of structural reform was recommended that would involve, as a first step, merging the Centers in West and Central Africa into one entity, and the Centers in East and Southern Africa into another. It suggested commissioning Task Forces to achieve similar consolidations in other regions of the world and stated that:

“The consensus view of the (Task Force) is that, in the long-term, the CGIAR should consolidate its operations under one Board and one CEO and manage the System through a corporate governance model. A new global legal entity would be established. Each of the existing Centers would become a subsidiary of the global entity. The entity would be governed by a single board, appointed by the CGIAR, with one CEO for the entire operation. All management authority in the existing Center Boards would be transferred to the single System Board.”

However, as was true of earlier reports, no significant actions resulted. The recommendation to consolidate African operations into two Centers produced only an agreement for improved cooperation between existing Centers.

13.2.8 Proposed Merger of CIMMYT and IRRI

In October 2003, the Chairs of the Boards of Trustees of CIMMYT and IRRI recommended a closer collaboration and suggested that this could involve arrangements ranging from a formal alliance to a full merger. The Chairs asked the Rockefeller Foundation for help to examine options. In response, the Foundation created a working group and an independent, External Oversight Committee. The Committee stated in its report (October 2004): “What is unique about this is that it represents…the first significant opportunity for major transformation of the CGIAR whose origins are from within the CGIAR Centers themselves. Other efforts have been for the most part, if not exclusively, externally driven. This unique opportunity, in the view of the Committee, is one that should not be missed.”

The Committee’s report recommended that the two Boards of Trustees should be merged into one and that there should be only one Director-General. However, the Boards of one of the Centers (IRRI) rejected this recommendation, opting instead to “increase collaboration” and share more services.

13.2.9 The Alliance of the CGIAR Centers 2006-Present

In 2006, the fifteen Centers formed the Alliance (initially called the “Alliance of Futures Harvest Centers”). The main impetus to form the Alliance was anxiety in the Centers about
being increasingly marginalized. They were concerned about their reduced representation on the Executive Council where pressures for mergers from donors and the Secretariat were discussed. The Alliance office which is housed at IFAD is a modest operation now comprising two professional officers and an assistant for an annual expenditure of less than $500,000.

Formed largely as a defense mechanism, the stated objectives of the Alliance are ambitious. These are summarized as:

(i) “to respond effectively to development challenges and to operate more cost efficiently as a result of resource sharing”;

(ii) “to cooperate and pool …resources whenever and wherever needed.”

Specific objectives state that the Alliance will act:

- "As a collective, unified voice for the Centers on matters requiring a common position;
- To strengthen …collective actions to create greater impact …while respecting the principle of subsidiarity;
- To create opportunities for enhanced collective action …ensuring economies of scale;
- To provide a mechanism for binding decisions to resolve conflicts among Centers."

In May 2007 the Alliance circulated its consensus document on “The Way Forward for the CGIAR System.” The document is mainly a statement of general principles and higher order purposes (for example: “improve productivity, improve natural resources management, and build a positive dynamic”). The paper, however, also allows that “(t)he CGIAR System appears to be over-governed” and it sketches three alternatives for an overall governance structure:

1. **Alternative 1: A Strengthened and Rules-Based Alliance of Centers:** under this alternative, the Alliance would

   (i) establish codes of conduct and would have the decision-making capacity to enforce and to exclude;

   (ii) share more formal governance via a strengthened Alliance Executive (AE), Alliance Board (AB) and Alliance Office;

   (iii) promote greater cooperation and efficiency; and

   (iv) develop an effective mechanism for allocating resources within the Alliance. The paper states that “this model favors a gradual evolution toward addressing all the needs of the …system. As such, it may be deemed too slow…”

2. **Alternative 2: A Centers-Owned Holding Corporation (Alliance inc.):** The Alliance would establish itself as a legal entity. Under this alternative: “The 15 Centers would probably evolve into a cluster of say, 5 to 7 functional units to streamline activities and services. Each cluster or merged set of Centers would remain independent legal entities and accordingly have a governing board, whose membership would overlap somewhat with the
governing board of the holding (company)...Governance ...could evolve from the AB/AE structure already put in place…”

3. Alternative 3: Establishment of an International Fund for Agricultural Research (IFAR): This would entail establishing a legal entity in the form of a centralized research organization which could receive, hold and allocate finances. Annual financing of the work of the Centers would be assured by a combination of replenishment funding cycles (the paper suggests the possibility of a five year cycle) and legally binding financial commitments. The paper accepts that individual Centers would need to assign some of their current independence to a central Governing Body but also suggests that there would be smaller Center Boards having much more limited responsibilities and suggests that “governance would largely be centralized with donor influence maintained through participation on the Governing Board.”

So far, the achievements of the Alliance are mostly intangible, for example, possibly building greater trust across Centers and generating interest among the Centers for a common intellectual platform. The Alliance’s own claims of progress have a distinctly modest character. At the end of 2007, for example, the “Report from the Alliance of CGIAR Centers” stated: “The Alliance’s focus during 2007 has been to maintain the momentum that its paper on ‘The Way Forward’ created, both within the Alliance and within the System.”32 The main accomplishments the paper lists are:

• Preparation of a paper analyzing current assessment mechanisms in the System, and proposing improvements in some of these.
• A survey on the lessons learned from existing Challenge Programs.
• A meeting between the Director General of FAO, the Alliance leadership and the SC to agree to a collaborative program between FAO and the Alliance.
• Working with members of the Private Sector Committee to implement a collaborative program of exchange of scientific knowledge.
• Designed a process for all Centers to post information about the salary of the DG and the salary scales of internationally recruited staff.

The modest nature of these accomplishments was reflected in assessments obtained through the Independent Panel Review Survey (IPRS). While the Alliance was assigned a reasonably high average score on importance- not inconsequential given its origins, it was given only a marginal to low average score (2.81) on effectiveness. The responses between different categories of respondents, however, demonstrated differences. Board Chairs, Directors-General and Deputy Directors-General assigned an average positive average score of 3.1, but not surprisingly the Challenge Program and Professional Staff respondents assigned low scores of 2.61 and 2.34, respectively. Also, while the average effectiveness score of Board Chairs and Directors-General was positive, the range of expressed views in interviews showed lingering differences (see examples in Table 13.2.1.)
Table 13.2.1: Assessments of Alliance Effectiveness by Board Chairs and Director-General

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
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<tr>
<td>• The Alliance is a positive step as it allows DGs and Chairs to meet and work out synergies.</td>
<td>• The Alliance is an embarrassment – entirely defensive – plays no useful role but costs money.</td>
</tr>
<tr>
<td>• The Centers have not been united and the Alliance was weak and lacking in authority. This has improved.</td>
<td>• I confess to being totally disillusioned about the ability of the Alliance to change; individual interest is always placed ahead of the collective good.</td>
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<tr>
<td>• The Alliance is now addressing the critical issue of governance. The Alliance has earned legitimacy.</td>
<td>• The Alliance is performing poorly; it works like a UN body – endless discussion, no clear agenda, and never a decision.</td>
</tr>
<tr>
<td>• The Alliance has been a useful intermediary step to corporate governance; it has improved inter-Center communications and stimulated more open debate among DGs and Chairs.</td>
<td>• We (the Centers) created the Alliance to defend our turf and the status quo – it was not a positive action but more like moving the chairs on the Titanic. Now we have another excuse for meetings…all we have done is to create one more level of administration.</td>
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<tr>
<td>• The Centers have been deliberately marginalized from decision-making over the past 5-6 years. The creation of the Alliance was an attempt to address this and there is some movement in the right direction.</td>
<td>• The Alliance has only added a further element of complexity to an already complex governance system.</td>
</tr>
<tr>
<td>• I was not a strong believer of the Alliance when it was created. I have to admit that it turning out to be a good surprise…there is now recognition that a single voice like the Alliance can be quite effective.</td>
<td>• It (the Alliance) cannot speak for 15 Centers; so it is just a talking shop.</td>
</tr>
<tr>
<td>• What is important to understand here is that we are attempting to change what have been 30+ years of competitive behavior...There is progress, but it is understandably slow.</td>
<td>• If we eliminated it (the Alliance) tomorrow it would not be missed. That says how important or effective the Alliance is.</td>
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</table>

Source: Interviews with Board Chairs and Directors General

There are also indications of a significant divergence within the Alliance on the change process that is currently ongoing. Reports on the discussions at the two most recent meetings of the Alliance (December 2007 and May 2008) indicate that some Board Chairs and Directors General support fundamental organizational and governance changes while others demur. The agreements reached in these meetings are expressed only in terms of the most abstract and general of principles, such as “decisions through subsidiarity”.31

So far, therefore, the Alliance’s achievements against its ambitious objectives have been modest. The Centers themselves hold divergent views its performance and potential. It bears underscoring, however, that the Alliance has existed for slightly over two years. It is, as many have observed, soon to ascertain either its value in its present form.

13.3 Executive Council (ExCo)

13.3.1 History, Mandate and Roles

One of the principal components of recent governance reform has been the establishment of ExCo in 2001. A broadly shared negative assessment of the value of the model of
governance that involved an annual “Centers week” meeting, supplemented by a small, annual mid-term meeting (MTM) had resulted in 2000 in a proposal to eliminate the MTM. It was left to the Change Design and Management Team (CDMT) report to provide a more detailed assessment of the problem. It reported that:

“The informal small club of donors with common concern for agricultural research has evolved into large diverse assemblies which find it difficult to exercise selectivity between essential and procedural decisions. The expansion of the membership of the CGIAR, the consequent complexity and inefficiency of decision-making at large CGIAR meetings, and the proposal to eliminate the MTM, have made the delegation of certain functions by the general body to subordinate entities (or levels) unavoidable. At present, most decisions default to mechanisms (committees, TAC, and Secretariat) which either lack authority or comparative expertise. Multiple committees examine the same issues. Decisions are not strongly binding on either shareholders or the Centers and there is no mechanism for following up decisions taken and hence no clear accountability for success/failure.”

To address this, the CDMT report recommended creating an Executive Council as a mechanism that would introduce much-needed efficiency and effectiveness into CGIAR governance. It argued that: “By eliminating the Mid-Term meeting and several committees, the way is open to organize the System’s workload better, to ensure cost-efficiency, and reduce bureaucracy.” The CDMT clearly envisaged the ExCo making decisions on behalf of the full membership of the CGIAR. It also judged that the 1998 report of the Third System Review had generated a suspicious political climate that would not permit immediate achievement of that goal. Thus, it sought, through an incremental approach, to build the trust required for decision-making delegations to the ExCo. It presented its proposition as:

“a committee of shareholders, expanded to include stakeholders, incorporating perspectives from all components of the CGIAR System” (by shareholders it is meant donors).

The decision to establish ExCo was made in October 2001, but it was delegated no decision-making authorities. Its mandate (see Table 13.3.1) was strictly limited to “co-ordinating, monitoring, overseeing, and recommending.” The CGIAR Chairman underscored these limitations in the first meeting of ExCo in November 2001. According to the summary record of that meeting, the Chairman remarked that "most of the items on the ExCo agenda were based on decisions reached by the Group that required follow-up action. The ExCo therefore had the responsibility of ensuring that the momentum created at and by the AGM was maintained.”

ExCo is chaired by the CGIAR Chair. It has 20 members, seven of which are permanent and the other 13 serve on a rotating basis, and It has held 14 meetings since its creation. According to the ExCo page of the CGIAR website: "the work of the Executive Council—brief, face-to-face meetings, or virtual communication based on ‘new age’ modes—will lead to clarity,
focus and speed in decision-making. It will result in a cost-effective re-organization of the CGIAR System’s workload.”

Table 13.3.1: Summary of Delegations Assigned to the Executive Committee

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Coordination and oversight</strong> of the CGIAR-wide strategic and operational planning processes;</td>
</tr>
<tr>
<td>2</td>
<td><strong>Recommendations</strong> on Challenge Programs resource mobilization, allocation plans, medium term plans and annual financing plans;</td>
</tr>
<tr>
<td>3</td>
<td><strong>Monitoring</strong> administrative actions arising out of the decisions taken by the CGIAR;</td>
</tr>
<tr>
<td>4</td>
<td><strong>Oversight</strong> of evaluation activities on behalf of the CGIAR;</td>
</tr>
<tr>
<td>5</td>
<td><strong>Recommendations</strong> concerning key appointments to System-Wide posts;</td>
</tr>
<tr>
<td>6</td>
<td><strong>Oversight</strong> of the work programs and performance of advisory and support units</td>
</tr>
<tr>
<td>7</td>
<td><strong>Note:</strong> Above highlighting ours</td>
</tr>
</tbody>
</table>

13.3.2 Stakeholder Views of the Executive Council

How successful has ExCo been in relation to the purposes set out by the CDMT and how is it regarded by the main CGIAR stakeholders? About three quarters of respondents to the Independent Review Panel survey consider the Executive Council “very important”, or “important” to CGIAR system governance, and less than ten percent think that it has “no importance” or a “minor importance”. However, less than one percent hold the view that it has been “very effective” and slightly less than 30 percent that it has been “effective”. Most of respondents assess that ExCo has been “not clearly effective” (39 percent), “marginally ineffective” (27 percent) or “completely ineffective” (4.5 percent) (See Figure 13.3.1).

Interestingly, even ExCo members themselves assigned a relatively low score to overall effectiveness (3.1), while Centers Board Chairs, Directors-General and Deputy Directors-General viewed it as 'highly ineffective' (2.6). Box 13.3.3 provides a range of comments by respondents that reflect these contrasting views. For some survey respondents, the Committee has played a bridging role between system-wide organs and the CGIAR membership, and could even “become a basis for an empowered and more effective CGIAR Board” that should be delegated strong decision-making powers. Among those who advocate abolishing ExCo altogether, the main reasons given include that it: is dominated by the World Bank and the Secretariat; has created tensions with the Centers; has focused on the wrong issues; has an overcrowded agenda and “just serves as a ‘dry-run’ meeting for the AGM going through its agenda”; has increased transaction costs greatly without increasing effectiveness; and does not have any power to make decisions.

With regard to recommendations for the future of ExCo, respondents were almost evenly divided between those who would abolish it altogether (the majority view of individual Centers) and those who would transform it into a full decision-making body (the majority view of donors and co-sponsors). Considering that there are three representatives from cosponsors, five from donor countries and one from foundations, it is interesting to note
that there were views such as: “currently, ExCo has limited donor ownership,” that “ExCo would benefit from participation from a committed set of core donors that provide effective oversight”, and that it also needs a group of “like-minded donors to use funding as the lever” to effect change.

The composition and representation structure of the ExCo (Table 13.3.2) has been questioned from several perspectives. The lack of effective participation of CGIAR beneficiaries and stakeholders from developing countries, particularly from African National Agricultural Research Centers, was frequently mentioned during interviews as a major ExCo shortcoming. In a similar vein, there are criticisms regarding the lack of representatives from the Alliance and the Centers (only one non-rotating member represents them). Other respondents and interviewees underscored the continuing failure to resolve the difficulties that led to the October 2002 decision by the Civil Society Partnership Committee to suspend participation in the Executive Committee.

To improve on mandate, composition or functioning of Executive Council, most respondents advocate more representation from developing countries (43.9 percent). Slightly more than a fifth of respondents say it should adopt formal voting and take binding decisions, about the same proportion suggest having more organized representation by the various constituencies—16.8 percent suggest having more representation of scientists, and a similar proportion of respondents indicate that major shareholder should be given more power (15.9 percent).

Table 13.3.2: Composition of the CGIAR Executive Council

<table>
<thead>
<tr>
<th>Members</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-rotating members</strong></td>
<td></td>
</tr>
<tr>
<td>CGIAR Chair</td>
<td>1</td>
</tr>
<tr>
<td>Cosponsors (FAO, World Bank, UNDP, IFAD)</td>
<td>3</td>
</tr>
<tr>
<td>Science Council Chair and Alliance representative</td>
<td>2</td>
</tr>
<tr>
<td>GFAR</td>
<td>1</td>
</tr>
<tr>
<td><strong>Rotating members</strong></td>
<td></td>
</tr>
<tr>
<td>OECD/DAC Country representatives</td>
<td>5</td>
</tr>
<tr>
<td>Americas</td>
<td>1 member</td>
</tr>
<tr>
<td>Asia and Pacific</td>
<td>1 member</td>
</tr>
<tr>
<td>Europe</td>
<td>3 members</td>
</tr>
<tr>
<td>Developing country representatives</td>
<td>5</td>
</tr>
<tr>
<td>Americas</td>
<td>1 member</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>1 member</td>
</tr>
<tr>
<td>Asia and Pacific</td>
<td>1 member</td>
</tr>
<tr>
<td>Central and West Asia and North Africa</td>
<td>1 member</td>
</tr>
<tr>
<td>Regional Fora</td>
<td>1 member</td>
</tr>
<tr>
<td>Foundations</td>
<td>1</td>
</tr>
<tr>
<td>Civil society/NGOs/farmers organizations</td>
<td>1</td>
</tr>
<tr>
<td>Private sector</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
</tr>
</tbody>
</table>

Source: The Charter of the CGIAR, paragraph 70
Rotating two thirds of the ExCo membership every two years is also viewed by several respondents and interviewees as a limit to effective participation, especially for members with limited knowledge of the CGIAR system. In addition, there are views that ExCo has “too many observers”, that “World Bank and Secretariat representatives have undue influence in decision-making,” and that “more development and management professionals with experience in running a business or research organization” should be involved in the ExCo.

**Figure 13.3.1:  Survey Respondent Views on the Executive Council**

![Survey Respondent Views on the Executive Council](chart.png)
Among those who would abolish ExCo and those who would transform it is a shared sense that the ExCo agenda is

- overcrowded;
- too similar to that of the AGM and that it is set without enough input from stakeholders;
- without enough time to go through the material effectively.

Also that:

- members should be more committed and “do their homework” before the meetings;
- the Chair could take more responsibility to follow through on the agreed items between meetings; and
- even though some respondents indicated that ExCo has good program and finance committees, it is not clear how much it helps to improve the functioning of the AGM.

**Box 13.3.3: Contrasting Perceptions on the CGIAR Executive Council**

```
“ExCo and AGM are weak” … “ExCo should be strengthened” … “ExCo has too many members.”
“If organized differently ExCo could be more valuable” … “Retain the same structure, but make it more efficient.”
“ExCo should be abolished”
“ExCo has no legal standing” … “Its value added is not clear to all.”
“ExCo can play a key role if donors increase their own coordination
“ExCo cannot take decisions. They have to go back to the AGM for practically everything.”
“Some members are not familiar with CGIAR reality in the trenches”
```


### 13.3.3 Performance of the Executive Council

The ExCo has not evolved in the ways that had been envisaged in the CDMT, at least in the eyes of many CGIAR members, especially those of the Centers themselves. Consistent
with its original framework, it has acted mainly as an advisory body and a mechanism for continuity between AGMs. Issues or proposals to delegate decision-making authorities to it have not been a regular part of AGM agendas since ExCo was created in 2001. (At AGM07, however, the CGIAR did delegate decision-making authority to ExCo on matters pertaining to External Program and Management Reviews (EPMR) of the Centers and Challenge Program External Reviews.) Moreover, an examination of the proceedings of all meetings of the Executive Council indicated that even as an advisor, it has provided very little advice in the way of independent counsel. It has acted essentially as a conduit to the AGM. That said, the CGIAR has endorsed over 90 percent of ExCo decisions.\(^{39}\)

The most general assessment provided in structured and semi-structured interviews with a cross section of ExCo current (9) and past (4) members was that ExCo either has proven or is proving to be a “lost opportunity” because it has not taken on more of the qualities of a decision-making body. Interestingly, almost all responses to the question “what do you regard as the most important contributions of ExCo to the CGIAR?” referred to potentials rather than to achievements.

Several interviewees also mentioned that the performance of the ExCo should be assessed in light of the entire CGIAR governance structure (one interviewee stated this as “It is just one part of a very bad governance system. You can’t really expect to strengthen ExCo unless there is trust in it throughout the system and the trust is not there.”)

The overall assessment that emerges from examination of the records, survey responses and interviews is that, because of structural, representational and operational limitations, ExCo has not functioned effectively to improve decision-making and it has not fulfilled the potential intended in the CDMT report. At present, to the extent that there is a consensus viewpoint, it is that ExCo is either not providing value commensurate with the effort and money put into it or that the value it does provide is highly circumscribed. As one interviewee put it is an “inefficient but necessary body in the present dysfunctional system-wide governance structure.”

13.4 CGIAR System Office

13.4.1 Role and Recent Evolution

The Change Design and Management Report of 2001 also recommended that a CGIAR System Office (SO) be established in order to increase overall efficiency of services, reduce areas of costly and conflictive duplication, promote alignment across the system and provide consolidated support for the entire CGIAR system. The SO was to be headed by the CGIAR Director, to encompass the CGIAR Secretariat’s functions and to provide a single, integrated communications function “to drive a new System communication vision and strategy in cooperation with the Centers’ public awareness units.”\(^{40}\) The Centers were to achieve
greater efficiencies through the common management and delivery support services that the SO would provide.

The Centers were to pay for the services provided and to determine which services they wished to delegate upwards to a new, centralized SO. At the time, the Centers suggested and the CDMT agreed on an extensive range of delegations (see Box 13.4.1).

Box 13.4.1: Functions Proposed for Centralized Management by the CDMT and Agreed by Centers

- In the area of common administrative services: human resources (e.g., coordination of personnel policies and corresponding manuals and databases); finance (e.g., coordination of financial policies with respect to audit, investments, risk management); general administrative services (e.g., development of procurement policies and guidelines); information and communication technology (e.g., coordination of Systems and software, creation and management of networks in the administrative areas).

- In the area of programmatic services: science advocacy (e.g., promotion of the contribution of science to food security, poverty alleviation and natural resources management); strategic partnerships (e.g., promotion of a common approach and standards for dealing with NARS); knowledge management (e.g., creation of networks within the System to achieve critical mass); intellectual property rights (e.g., negotiation of System wide IPR agreements and management of possible Center-owned IP revenues).


The SO was formally constituted in 2001, but its roles and responsibilities were agreed and formalized in the CGIAR Charter only in 2004. The Charter stipulates that the SO “is a virtual office and is not a physical consolidation” (and that) “each unit will continue to be accountable in a fiduciary and performance sense to its own governing authority” but also “in a broad sense to the ExCo (with) this accountability being coordinated through the CGIAR Director.” The Charter further stipulates that the SO is to be guided by a Steering Committee of three: the CGIAR Director, the Chair of the Science Council and the chair of the Alliance executive of the previous year.

The intention of the CDMT in recommending establishment of the SO was to align and streamline the operations and administration of the CGIAR. It stated that: “A major burden is the lack of alignment of major factors that contribute to the System’s performance (e.g., strategy, structure, programs, finance) for which no other System body has overview responsibility. Thus, a very basic managerial and structural issue is that there is no executive body for the whole System, i.e., an entity which has the authority to follow up on decisions, ensure alignment and congruence of recommendations, and act on decisions with a more urgent time frame than the next CGIAR meeting. This is a critical gap that needs to be removed at the earliest opportunity.”

The Charter seems to push in the opposite direction to this. It establishes multiple committees and levels of oversight and governance and also reinforces the absence of clear authority lines that the CDMT had diagnosed as a root cause of CGIAR difficulties. The structural characteristics stipulated in the charter also place the CGIAR Director in a very
unusual position where he is a member of the SO Steering Committee, head of the CG Secretariat to which the SC reports and client of the SO. Apart from the question of the effects of this arrangement on system efficiency, there is the obvious matter of conflict of interest or, at a minimum, a clear perception of conflict of interest.

Some of the constituent units of the SO had been in place for some time before the SO was established. For example, the CGIAR Secretariat and the Science Council (or its predecessor, TAC) existed since 1975. Also, the Gender & Diversity function began originally as a project from 1991 to 1998 when it was decided to create a stand alone unit.

**Box 13.4.2: Structures of the Systems Office to End of 2007**

<table>
<thead>
<tr>
<th>SO Unit</th>
<th>Established</th>
<th>Intended Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGIAR Secretariat</td>
<td>1975</td>
<td>Serves as the hub of the CGIAR System with a significant integration and facilitation role to ensure that collective action by many independent but interdependent components is directed to the CGIAR mission, implements communication with the CG System and with its partners</td>
</tr>
<tr>
<td>Science Council Secretariat (formerly the Technical Advisory Committee)</td>
<td>1975</td>
<td>Provides technical and administrative support by preparing strategic studies and documents, preparing external reviews, organizing SC meetings, backstopping the activities of four SC panels and implementing SC decisions.</td>
</tr>
<tr>
<td>Alliance Office</td>
<td>2006</td>
<td>Established by Center Board Chairs and Center Directors-General, the Alliance Office provides high-level strategic and operational support to CGIAR Centers. Conceived as an integral part of the CGIAR System Office, this unit is intended to ensure the alignment of the Centers’ work with the wider CGIAR activities and objectives, and to inform the collective work of the System Office with the Centers’ views and expertise.</td>
</tr>
<tr>
<td>Gender &amp; Diversity</td>
<td>1999</td>
<td>Provides and facilitates expert advice and enhances the exchange of knowledge on and experience with gender diversity.</td>
</tr>
<tr>
<td>Internal Audit</td>
<td>2000</td>
<td>Provide a cost-effective internal audit service to improve operations and strengthen internal controls in participating Centers</td>
</tr>
<tr>
<td>CAS-IP</td>
<td>2002</td>
<td>Provide and facilitate expert advice and enhance the exchange of knowledge and experiences in IP Management and Technology Transfer.</td>
</tr>
<tr>
<td>Chief Information Officer</td>
<td>2002</td>
<td>Helps to plan and coordinate information technology, information and knowledge management within the CG System.</td>
</tr>
<tr>
<td>SAS-Human Resources</td>
<td>2003</td>
<td>Assists participating Centers in defining needs, developing and implementing sound people policies through strategic approaches, monitoring the impact and success of human resources policy and practice.</td>
</tr>
<tr>
<td>Media Unit</td>
<td>2006</td>
<td>Develop and implement a media strategy that secures positive coverage of joint Center research achievements and impacts of collective work in mainstream print and broadcast media outlets.</td>
</tr>
<tr>
<td>AIARC</td>
<td>Withdrawn</td>
<td></td>
</tr>
<tr>
<td>Future Harvest</td>
<td>Withdrawn</td>
<td></td>
</tr>
</tbody>
</table>

Source: CGIAR Website

There were 10 separate units operating in 2001 that were brought under the umbrella of the SO. These units vary considerably in size and character, ranging from the CGIAR
Independent Review of the CGIAR System

Secretariat with a budget of $4.15 million to small units with just a few staff and budgets under $300,000.

Towards the end of 2007, the Steering Committee for the SO determined that the Science Council Secretariat should be removed from the System Office in order to assure the independence of its science advisory role and that the Media Unit (established only in late 2006) should be integrated with the Communications Team at the Secretariat. At the same time, the committee decided that the SO should be amalgamated into a total of only 5 Units (Alliance Office, the CG Secretariat, Internal Audit Unit, the Intellectual Property Advisory Unit and the Information Office) and that:

- The Alliance Office should have a program advisory committee and operational supervision by the CGIAR Director.
- Each unit, except the CGIAR Secretariat and the Alliance Office, should have a program advisory committee and operational supervision by the CGIAR Director.

Thus, the Steering Committee determined that additional committees were necessary to guide the work of the CGIAR. This moved management of the CGIAR yet further in the opposite direction of the intent of the CDMT recommendations. The CDMT’s diagnostic had been that non decision-making committees were a major part of the problems of the CGIAR and that decisions were deflected to committees lacking in authority, where decisions were not “strongly binding” and of “multiple committees (that) examine the same issues.”

The inclination of the CGIAR in implementing the CDMT recommendations for the SO seems to have inclined to a reaffirmation of the problem.

The written comments of respondents to the Independent Review Panel Survey included 165 mentions of the “Secretariat” and only two of the “System Office”, with the Centers (i.e., the Board Chairs, DG’s and DDG’s) recording 77 mentions. Of these, 51 (30.5 percent) were specific to the Science Council Secretariat and 92 (55.1 percent) specific to the CGIAR Secretariat. The reference in the remaining 34 (20.3 percent) was non-specific. Although the content of the comments on the CGIAR Secretariat were varied, the majority could be classified by four areas, as follows:

Table 13.4.3: Distribution of Comments Regarding the CGIAR Secretariat in the Independent Review Panel Survey

<table>
<thead>
<tr>
<th>Cost</th>
<th>Performance</th>
<th>Structure</th>
<th>Trust</th>
<th>Non-Specific</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>21</td>
<td>10</td>
<td>14</td>
<td>20</td>
<td>92</td>
</tr>
<tr>
<td>29.4%</td>
<td>22.8%</td>
<td>10.9%</td>
<td>15.2%</td>
<td>21.7%</td>
<td>100%</td>
</tr>
</tbody>
</table>

With regard to cost, the comments involved expressions of concern about “high costs” and rising costs, mainly from the Centers. Representative statements included the following:
• “The financing of the Secretariat and other system office units has gotten so expensive over time while the total contribution of $50 million has not increased, leaving less for financing the centers.”
• “Reduce the bureaucracy of the Secretariat. The costs are high and rising and the benefits are declining.”
• “The financing of the Secretariat is completely vague. Why is more money needed each year for the Secretariat and less made available for research?”

There are clearly misconceptions about the costs associated with the CGIAR Secretariat and with the entire SO (including the Science Council). In fact, as shown in Table 13.4.5 below, the costs of the SO have barely moved since 2003. Also, as a percentage of the total CGIAR budget, SO costs have declined from 2.5 to 1.9 percent. The cost of the Secretariat increased modestly over the five year period from 2003 from $3.9 million to $4.2 million (7.6 percent) and the cost of the other units, including the Alliance Office but excluding the Science Council Secretariat actually decreased very slightly (from $3.6 to $3.5 million). The most significant increase was in the Science Council Secretariat which grew by 15.7 percent from $1.9-$2.2 million, a nominal increase of almost 4 percent per annum.

13.4.2 Performance of the System Office

With regard to the performance of the SO, an independent consultancy review was conducted in 2006. The consultancy was of relatively short duration and interviews were held with only eight current or former Directors-General and only one Board Chair. The assessment of how the Centers viewed the performance of the SO was, therefore, based on a limited number of observations, a limitation pointed out by the consultant in his report. The overall conclusions of the review were nevertheless very positive. Among the main findings of the report were:
• The creation of the SO has improved transparency and accountability of the SO units.
• The real costs of maintaining the SO are minimal.
• While still modest, the SO is effective in providing value to the CGIAR with a high benefit to cost ratio.
• The SO has increased the capability of the SO units, particularly the smaller units.
• The practice of creating SO units with support from only a number of Centers has a number of advantages. It allows for quick establishment, testing on a small scale and for others to buy in if benefits become evident.
• There are no opportunities for merging units in the short term.
• There would be no advantages from a major merger of SO units unless there is a very significant growth in the size of the SO.

The 5th System Office Workshop reviewed the evaluation and its findings. It accepted the report as a “work in progress” but rightly cautioned on its limitations, noting that it “is very much based on anecdotal evidence and shows some analytical weakness and lacks any views and
input from CGIAR members. The review should be therefore considered as a report on work in progress of the SO rather than a comprehensive review.”

The Independent Review Panel strongly endorses this cautionary message. A more nuanced and variable picture emerges from its survey. Comments, especially those from Centers, point to a high level of frustration with what is interpreted as unnecessary demands for information and unrealistic time deadlines from the System Office. The comments also claim that the System Office is “distant and aloof”, “concerned more with making work for us than with helping us to work” and also lacking understanding (“they are supply-side; they don’t take time to understand what we really need”). The most frequent comment on System Office performance from the Centers related to what they perceived as weakness in financial oversight, referring specifically to the insolvency of CIAT. Balanced against these assessments were several positive references to System Office performance, including, for example, “Of the four pillars of reform (from the 2001 reform), the creation of the Systems Office has been one of the most effective – harnessing synergies and creating system-wide platforms that are/will be extremely useful”).

This mixed assessment of System Office performance also emerged from the in-depth interviews conducted by the Independent Review Panel. The less positive assessments in the survey comments and from interviews seem to be highly correlated with issues of trust. From all reports, there is no doubt that trust between Centers and the System Office declined in recent years, although there are also claims that it has begun to improve over the past year of so. Illustrative statements from the Independent Panel Survey are contained in Box 13.4.4, below.

Box 13.4.4: The Issue of Trust: Perceptions of the System Office

"Under its previous leadership, the CGIAR Secretariat abdicated its responsibility.”

"The role of the former CGIAR Chair and Secretariat was poorly executed. It produced deep divisions.”

"The CG Secretariat preferentially served the WB and not the members.”

"(There is a) conflict of interest in having the Secretariat as World Bank employees. It’s real and problematic.”

"The Secretariat has been given too much power and it is not transparent in dealing with us.”

"The Secretariat has not been very transparent.”

"Remove the conflict of interest from the secretariat.”

"The Bank controls the secretariat directly.”

"What is needed is a more open and honest Secretariat that openly consults with Board Chair and listens to their input.”

"Reform of the CG secretariat, particularly with regard to the attitudes of many of its staff (although there are a few notable exceptions). Recognition that they are there to serve the members and the Centers. Recognition that many in the CG secretariat are inexperienced and politically appointed, often without a real recruitment exercise. A bit more humility in this context, and less arrogance towards the Centers. Currently the CGIAR Secretariat is the most negative force in the system, although the new director is doing his best to turn this situation around.”

Source: Independent Panel Survey, see Appendix 1
A major barrier to any objective evaluation of the System Office is that it has been slow to establish performance indicators against which reporting and measurement can take place. The SO itself noted this barrier in 2006 and indicated its intention to rectify it. The SO stated that: “The SC Secretariat…will develop a small set of System Office performance indicators (2-3 indicators) to assess effectiveness, efficiency, and if possible innovation and change management of the SO…Fewer valid indicators would be preferable to multiple indicators. These indicators should be included in the next Integrated Operating Plan (2007).”

The Review Panel endorses this approach. In 2007, the System Office made a first step by producing for the first time an Operating Plan. It included statements of five year goals, outputs expected during the year and very general indicators of performance measurement (e.g., 360 degree appraisals, dialogue with partners, quality assurance reviews, etc.) but, unfortunately, no clear performance indicators. The Panel recommends greater attention to this and also that performance indicators should be established jointly with the Centers as the main clients of the services of the System Office.

Measured against the simplification and alignment goals of the CDMT report, the CGIAR Charter has tended to push the System in the opposite direction with unnecessarily complicated governance structures. There is a propensity to address issues and work planning on a committee basis rather than with clear authorities and commitment to agreements, There is a little indication of client centered incentives. Taken together the paucity of clear authorities, ambiguity about accountabilities and business like procedures, may have unintentionally stimulated a lack of trust in the system, at least some quarters.

As to the performance of the System Office, the report of the independent consultant’s

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**Table 13.4.5: System Office Costs**

<table>
<thead>
<tr>
<th># of SO units</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIGAR Secretariat</td>
<td>3.9</td>
<td>3.95</td>
<td>4.10</td>
<td>4.15</td>
<td>4.2</td>
</tr>
<tr>
<td>Science Council Secretariat</td>
<td>1.9</td>
<td>1.0</td>
<td>1.5</td>
<td>2.16</td>
<td>2.2</td>
</tr>
<tr>
<td>Alliance Office</td>
<td>0.2</td>
<td>0.43</td>
<td>0.6</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>CAS-IP</td>
<td>0.2</td>
<td>0.2</td>
<td>0.53</td>
<td>0.73</td>
<td>0.6</td>
</tr>
<tr>
<td>CIO</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>G &amp; D</td>
<td>0.6</td>
<td>0.6</td>
<td>0.8</td>
<td>1.13</td>
<td>1.8</td>
</tr>
<tr>
<td>IAU</td>
<td>0.4</td>
<td>0.3</td>
<td>0.7</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>SAS-HR</td>
<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
<td>0.3</td>
<td>0.6</td>
</tr>
<tr>
<td>FHF</td>
<td>0.6</td>
<td>0.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIARC</td>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.2</td>
</tr>
<tr>
<td>Total SO Budget</td>
<td>9.4</td>
<td>7.2</td>
<td>9.8</td>
<td>10.4</td>
<td>9.9</td>
</tr>
<tr>
<td>Total CGIAR Budget</td>
<td>381</td>
<td>437</td>
<td>350</td>
<td>489</td>
<td>520</td>
</tr>
<tr>
<td>Percentage SO/CGIAR Budget</td>
<td>2.5%</td>
<td>1.6%</td>
<td>2.9%</td>
<td>2.1%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Source: System Office Annual Reports
evaluation of 2006 was solidly positive, but predicated on quite limited feedback from the Centers. The findings of the independent review Panel are less universally positive and signal the need to streamline executive accountability and to adopt a client orientation.

13.5 Lessons Learned From Attempts at Governance Reform

As the above synopsis shows, the numerous attempts at CGIAR governance reform since 1993 have been largely unsuccessful. Yet there remains a wide consensus among individual Centers, members, co-sponsors and the international scientific community that unless the decision-making paralysis of CGIAR governance is resolved, the system will be increasingly marginalized. The common thread in the many efforts to reform CGIAR governance has been a search for authoritative and binding decision-making arrangements, coupled with establishment of a genuine corporate identity. For all the time and effort expended, however, the net result has been to increase the number of structures, overall complexity, and transactions costs. Figures 13.5.1 and 13.5.2 depict the governing structures and arrangements for the CGIAR in 1971 and today. Comparing and contrasting the two figures shows clearly the complexity and suggests strongly the unmanageability of today’s arrangements.

Figure 13.5.1: CGIAR System Structure 1971

![Diagram of CGIAR System Structure 1971](image-url)
Why have all of these efforts come to so little? The Sub-Saharan Task Force attributed principal responsibility to territoriality and individuality of the Centers. It stated that:

“…major disincentives for collective action even when this is perceived to be more effective for development than individual Center efforts. This is a result of the fact that the primary allegiance of scientists and managers is only to individual Centers and not to the System as a whole..., a lack of whole hearted support for the new directions proposed...there are divergent interests and agendas... Centers fear loss of identity and authority. There are concerns that staff will lose jobs and benefits, as well as concerns of local governments that major changes will lead to a breach of home country agreements; and there is a lack of instruments at the
CGIAR level to effect significant changes not supported by the Center Boards and Center Directors, and concerns about the transactions costs of change.”

In the view of the Panel, this explanation is an oversimplification that diminishes the legitimate concerns of Centers. It misses the fact that failure to achieve reforms in the CGIAR has been a shared and collective failure. The more accurate explanation has been provided by Hayami, Lipton and Mule. They wrote that the failure to achieve effective reform is:

“… a tragedy of the commons. Each donor furthers its aims by providing funds restricted to those aims. Each Centre goes its own way, partly to get such funds, partly because doing so frees it from pressures to work with the System as a whole. The results are lack of System-wide strategy, little sense of overall ownership, and loss of System efficiency.”

The conclusion of the Panel is that the main parties of the CGIAR partnership have been equally responsible for the failure of successive efforts to achieve effective governance. The parties are all in good faith and all wish genuinely to bring about a strengthened CGIAR. Yet deep inertias at the Centers level have combined with a fractured system of donor incentives to create an impasse. The parties default to their own immediate interests and the net result has been a tragedy of the commons.

A good starting point for any renewed attempts to bring about significant governance changes to the CGIAR System would be to take account of lessons that can be learned from past efforts. Among these would be the following:

- **Evolutionary approaches to restructuring have not worked and are unlikely to work if attempted again.** This is not unique to the CGIAR. A main conclusion from the many restructuring attempts of United Nations development agencies is that their complicated multilateral governance structures are subject to change only through directive, top-down approaches with specified milestones.

- **The core problem of CGIAR governance is structural (as the Sub-Saharan Africa Task Force rightly concluded), but change efforts have proceeded on the basis that form (structures) would follow function.** The probable case in the CGIAR is that function will need to follow form. Given the CGIAR has no decision-making authority that can determine function; little has been changed in function and even less in form. Because of this, it will be essential first to put in place the required structures which allow leaders to decide on overarching strategy with clear measurable strategic objectives, aligned allocations and a results framework to demonstrate progress.

**Most CGIAR change efforts began by reaffirming three main founding principles of the CGIAR: donor sovereignty, Center independence and consensus decision-
making. In light of the Paris Declaration, these principles are outdated and are root causes of dysfunction on the governance of the CGIAR. Donor sovereignty needs to be shaded more to harmonization and coordination. Center independence needs to be shaded more to network collaboration to increase relevance and effectiveness in responding to larger challenges such as climate change. Decision-making needs to be shaded more towards clear authority and more binding decisions.

- Sound governance requires that responsibilities be clearly assigned and that effective authority and accountabilities accompany responsibilities. Previous reform efforts have explicitly recognized these factors but have been unable to resolve them. Rather the net effect of prior efforts has been to establish an every-increasing array of structures based on ad hoc relationships that have blurred further lines of responsibility and accountability.

- There has been a serious absence of ex ante incentives to catalyze and reward change. Efforts to bring about major structural and governance reforms, including consolidations and mergers of individual Centers, have not been supported by clear incentives. The financial incentives specifically called for in the CDMT report (i.e., a special fund to support and reward structural change) never materialized. From the perspective of the Centers, certain aspects of change carry with them substantial risks to reputation and to brand recognition, as well as job losses.

These lessons from past efforts underscore the need for a new and very different approach to CGIAR governance reform.

13.6 Current System-Wide Governance Structures at the CGIAR

In the early 1970s, the CGIAR was a pioneer in international governance arrangements. It was the first Consultative Group that had a thematic focus. It was the first such group to involve multiple beneficiaries. As a testimony to its early innovative nature, there were calls in the 1970s and 1990s to establish CGIAR-like networks in health research, environmental protection, and science and technology capacity building.

The CGIAR has some particular features that have made it distinct from traditional Consultative Groups and also from more recent country level consultative arrangements within PRSP frameworks and other similar arrangements. Table 13.6.1 summarizes the main features of three types of Consultative Groups.
### Table 13.6.1: Main Features of Different Types of Consultative Groups (CGs)

<table>
<thead>
<tr>
<th>Traditional Country CGs</th>
<th>Evolved Country CGs</th>
<th>CGIAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country strategy and priorities converted into projects as foci for donor attention</td>
<td>Country strategy and sector-wide approaches within PRSPs. Often budget support</td>
<td>Strategy absent; main focus on projects</td>
</tr>
<tr>
<td>Formal Pledging session – multiple year pledging</td>
<td>Collaboration and alignment plus multi year pledging</td>
<td>Limited attention to collaboration or alignment; mainly annual pledging</td>
</tr>
<tr>
<td>No charter of rules-based Membership (attendance)</td>
<td>Variable rules-based collaboration determined at national level</td>
<td>Charter (non binding) but codified membership rules</td>
</tr>
<tr>
<td>Full donor sovereignty and country independence</td>
<td>Collective action and co-responsibility encouraged. Mutual accountability, harmonization, management for results, country ownership</td>
<td>Limited co-responsibility and by default to World Bank</td>
</tr>
<tr>
<td>One international actor serves as convener and honest broker (World Bank CG’s or UNDP Round Tables in Least Developed Countries)</td>
<td>Multiple actors (donors and country) as conveners Standing institutional mechanism established (e.g., PRSP coordination committee) and convened on continuous basis</td>
<td>CGIAR Charter establishes that there will be an Annual General Meeting of the Group (previously semi-annual)</td>
</tr>
<tr>
<td>No standing administrative structures to link donors and country</td>
<td>Partnership administrative structures such as PRSP committee to link donors and country and convened on a regular basis</td>
<td>Formal standing administrative arrangements via the CGIAR Secretariat, Systems Office, etc.</td>
</tr>
<tr>
<td>Periodic but often irregular meetings.</td>
<td>Continuous processes aiming at alignment and performance feedback. Annual PRSP strategy and review meetings in some countries</td>
<td>Regularly scheduled meetings but no systematic attention to alignment. Performance feedback mainly bilateral</td>
</tr>
<tr>
<td>Financing usually project-based and decided bilaterally</td>
<td>Financing increasingly program based, with budget support gaining acceptance</td>
<td>Combination of program and project based financing with funds for System-Wide support activities</td>
</tr>
<tr>
<td>No formal membership</td>
<td>No formal membership</td>
<td>Formal membership</td>
</tr>
<tr>
<td>Accountability largely assigned to country government</td>
<td>Shared Accountability (country government and donors)</td>
<td>Accountability unclear. Nominally Center Boards fully accountable, but financial difficulties default to a single donor (World Bank). Gains privatized and losses socialized.</td>
</tr>
</tbody>
</table>

Source: Independent Review Panel

With the accelerated globalization processes of the last few decades, the emergence of new actors and with the growing complexity of international governance arrangements, the context for CGIAR operations has changed radically. More recently, the Monterrey Consensus and the Paris Declaration have changed the approaches and practices in development cooperation at the country level. In addition, a new international food crisis that is expected to last for several more years emerged in 2008, prompting calls for increased investment in agricultural research for development.

At the same time, conceptions about the nature of governance in complex development-oriented international research networks have also changed. These networks now involve a broader range of stakeholders and donors that focus more sharply on outcomes and impact. Advances in information technology have led to greater transparency and speed in
decision-making, and new performance evaluation tools simplify learning and improve management processes.

In addition, the financing context of CGIAR operations has also experienced major change. Over the past decade, CGIAR financing has become simultaneously broader (a larger number of financial contributors, including developing countries) and narrower (50 percent of total CGIAR financing now comes from only five donors). At the same time, two more transformational factors are evident. The first, as Figure 13.6.1 shows, is that the restricted financing as a percentage of total financing has increased significantly and the current trend is steadily towards further declines in the overall percentage of funding on an unrestricted basis. The second is that several major donors have signaled that they cannot be expected to continue financing the CGIAR unless new structural and governance arrangements are put in place to reduce substantially the high transactions costs.

**Figure 13.6.1: Restricted and Unrestricted Funding at the CGIAR**

![CGIAR Unrestricted and Restricted Funding Trends 1997 to 2007](image)


Against this background, on the positive side, there is growing awareness that the new context of need for agricultural a window of opportunity for the CGIAR. On the less positive side is a widely shared consensus that the window of opportunity cannot be seized without a major restructuring of current CGIAR governance arrangements. In this regard, it is encouraging that there are some recent precedents in successfully transforming basic structures in long-established international development institutions.
For example, the African Development Bank and IFAD have demonstrated how deep institutional reforms can quickly earn donor confidence and can result in major increases of essentially unrestricted financing. There are also the examples of new architectural arrangements involving robust financing schemes and innovative organizational modalities to produce and deliver international public goods such as Global Alliance for Vaccines and Immunization and the Global Fund for HIV/AIDS, Malaria and Tuberculosis.

The CGIAR now faces the task of designing and putting into practice governance arrangements for a new generation of global and regional agricultural research partnerships focused on providing international public goods. The new governance arrangements should generate trust among CGIAR stakeholders, and particularly between Centers and donors, and create the conditions for the CGIAR to become a cohesive, nimble, high-performance and high-impact international research network.

There is little to suggest, however, that reform will be easy. As the interview quotes in Box 13.6.2 show, views on the direction changes should take differ widely. Besides, there is a degree of reform fatigue and frustration with the lack of implementation and accountability of past reform efforts. Some of the key barriers to change that interviewees and survey respondents identified include: (a) funding and incentives that do not match reform implementation, (b) reductions in unrestricted and long-term core resources, (c) vested interests and institutional inertias, (d) fear of losses as a result of possible downsizing, (e) lack of leadership and clarity regarding CGIAR vision and objectives, (f) lack of System-level coherence, and (g) the need for more transparent dialogue inside CGIAR and with partners.

Box 13.6.2: Perceptions on the Future of Governance at the CGIAR

<table>
<thead>
<tr>
<th>Perceptions on the future of governance at the CGIAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>“There is a consensus that the partnership is severely strained, that it needs major and substantive reform, and that it cannot continue in its present form as an informal international association.”</td>
</tr>
<tr>
<td>“Two years ago, EU donors were stating openly that they were concerned at the amount of money being consigned to the CGIAR with few demonstrable results. That is still the situation and the CGIAR seems to have done almost nothing in concrete terms to deal with this.”</td>
</tr>
<tr>
<td>“The CGIAR requires an entirely new governance model that assigns authority and accountability to a central body charged with acting in the interests of the system and not only of its component parts. There is no option other than a radical restructuring; in this case substance will need to follow form, for unless the form is changed there is no hope of addressing substance.”</td>
</tr>
<tr>
<td>“Reform attempts must deal squarely with the issues of: new business models for the CGIAR as a whole and its member Centers; the comparative advantage and core competencies of different CGIAR components; and the question of how whether and how to focus CGIAR activities on the provision of international (regional, global) public goods.”</td>
</tr>
</tbody>
</table>
Perceptions on the future of governance at the CGIAR

“The interests and perspectives of various stakeholders are different, a purely global perspective on the CGIAR will not work”; … “A centralized model is not good” … [but] “there is the illusion that ‘One Board’ will solve all the issues” … “A super Board without autonomous Center governance may be good for ‘global issues’, but not for the specific problems in a region, where there is a need for involvement and buy-in of key stakeholders”

“Combine both system level central governance body with autonomous governance bodies at the individual Center level”…

“Could the evaluation challenge the main donors to provide a clear signal of financial support, conditional on a number of specific changes? If a commitment to clear and adequate incentives could be made the Centers ‘would jump through the hoops’ … they know that the current situation is not sustainable and that radical change is essential, but without incentives it will not happen and the default will be to the status quo.”

“There is not going to be a huge pot of core funding to assign to individual Centers for their individual research activities. The best case scenario possible would involve establishment of a significant multi-year funding arrangement to be allocated on a competitive basis through a central mechanism to the best proposals available.”

Source: Interviews with Center Directors, Chairs, ExCo members, Science Council members and former senior members of the CGIAR.

13.7 Looking Forward: Guiding Principles and Best Practices for Renewing the CGIAR

An overall appreciation of System-Wide governance bodies at the CGIAR indicates that the CGIAR Charter, adherence to which is not mandatory, enshrines the practice of what may be called “dispersed governance,” in which there are no real ways of exercising power and authority by taking binding decisions. This means that in practice there is no locus for System-Wide decisions on important governance matters. As there is no empowered “entry point” into the CGIAR or an accepted and empowered leader who can speak and act with authority for the System, decision-making on these matters is shifted downward to individual Center Boards and upward to the CGIAR Consultative Group. The expression of collective will of the Group is dependent on the Annual General Meeting (and in particular its Business Meeting segment) which is a large and unwieldy body that is able to take decisions only by consensus. At the other extreme, specific decisions on vision, partnerships, organizational structure, research activities and resource allocation are made by the Boards and managements of the Centers. All intermediary organizations between the Centers and the Annual General Meeting of the Consultative Group are either only advisory or fulfill non-binding oversight and monitoring functions.

The absence of focal point for the exercise of System-Wide power and authority has several important outcomes. Among these are high transaction costs (identified especially by new donors as a serious disincentive to working with the CGIAR). A second is the absence of clarity in defining the comparative advantage and core competences of the CGIAR in a vastly changed context of research for development. The Centers have differing views on the CGIAR comparative advantage. These are often incongruent with the views of the various System-Wide governance bodies. In particular, the CGIAR does
not have a shared perspective about where it fits along the continuum from the conduct of scientific research to the practical application of research results in the field.

If these serious inadequacies are to be rectified, this evaluation suggests that there are three major influences in the political economy of international development cooperation and agricultural research that should be taken into account.

The first refers to the major changes now evident in global food production and in food prices that have led to renewed international recognition of the importance of agricultural research. The second relates to the growing importance of International Public Goods, which has been clearly recognized by CGIAR membership but has not yet become a shared organizing principle to define the core competencies and comparative advantage of the CGIAR partnership. The third influence stems from the adoption in 2005 of the Paris Declaration by both donors and recipients. This Declaration establishes a series of principles and practices to improve aid effectiveness. The following three sections comment briefly on these three changes.

13.7.1 The Crisis in Food and the CGIAR

As demonstrated in Chapter 2 of this report, a new international development consensus emerged during the first half of 2008. It holds that the current “food price crisis” threatens many of the poverty reduction gains of the past two decades and that this is a structural, long term problem and not a temporary upheaval.

Even more alarming is the climate change consensus as it relates to the prospects for agriculture, nutrition and food security is climate change. The 2007 report of the Inter-Governmental Panel on Climate Change concluded that, without new agricultural technologies and innovations, the world by 2020 will confront an unparalleled food crisis that will include:

- A 2.5 to 10 percent decrease in Asian crop yields placing up to 49 million at risk of hunger.
- A shift in crop patterns in Latin America placing 5 million at risk of hunger.
- Reduced yields of most essential crops across Africa placing hundreds of millions at risk of famine.

These factors have combined to move issues of agriculture and food security to the center stage of the international political economy. They have also served to underscore the imperative of research to produce the technologies required to address these challenges. This presents the CGIAR with new opportunities and a daunting challenge for appropriate responses. It has also focused specific international attention on the CGIAR. For example, World Bank President, Robert Zoellick, has called for a doubling of investment in the CGIAR over the next five years.
13.7.2 An International Public Goods Perspective on CGIAR Governance

Even though the term “international public goods” was not used explicitly to describe CGIAR functions when it was created, terms such as “spillover effects” and “positive externalities” were common in the 1970s and 1980s and these were applied to the CGIAR. The idea of treating the CGIAR as a provider of international public goods goes back two and a half decades and the language of international public goods has been applied to the CGIAR since about the late 1990s. Yet, despite several efforts, clarity and agreement on what role the CGIAR should play in the provision and delivery of agricultural research international public goods has not emerged yet.

An initial question that needs to be resolved is that of comparative advantage. To what extent is the CGIAR best placed to produce international public goods and which goods are these? Are other organizations (e.g., NARS) now better positioned for this purpose? Where does the CGIAR best fit with other organizations? An IPG approach to determining comparative advantage could help design partnership strategies with other organizations to ensure that a complete delivery system is in place to generate, disseminate and use the various international public goods.

An international public goods strategy must take into account that IPGs are ultimately rooted in specific activities at national and local levels. Without the capacities to produce, deliver and assure usage, a good is by definition not an international public good. As a result, strong national and local foundations are required to reap the benefits of global public goods and contribute to providing them. Applied to international development, this requires international development organizations to pay attention to the necessary linkages between the production of IPGs and the domestic capacity-building required for their delivery and use.

This has important implications for the CGIAR. It means that it is not enough to attend only to the production of the ‘core’ component of an IPG delivery system (i.e. research results, knowledge services, institutional capacity at the Centers). Developing country partners, communities and individuals also need appropriate actions and arrangements to adopt and use IPGs. This involves a range of complementary activities (adaptation, dissemination, extension, technical assistance, policy advice and training, among others) that allow the core component to filter down through a network of institutions from the global to the local levels.

This does not mean the CGIAR should itself carry out these complementary activities, nor that it should be held accountable for the adequacy and effectiveness of their delivery. Many of these areas lie outside the control, comparative advantage and core competencies
of the CGIAR. Nevertheless, the CGIAR needs to be aware of the requirements for the appropriate use of the IPGs it produces. In other words, a necessary condition for the CGIAR to define itself meaningfully as an international public good is that it must be part of a complete delivery system which includes the production, provision and effective take-up of its goods. To repeat, this does not mean that the CGIAR needs itself to take a new agricultural technology from invention to farmer-level uptake. Its strategies, however, must explicitly address the requirements of such a complete system and its operations must include the partnership arrangements for such a system.

Thus, the distinction between the “core” and “complementary” components is useful to place the CGIAR role in providing international public goods. It focuses attention on the extent to which the CGIAR should generate and make knowledge available for other entities to deploy and apply it, and on the extent to which it should actively undertake efforts to ensure that national and local institutions, as well as other international institutions, apply the knowledge generated.

The CGIAR can be seen as providing three main types of international public goods. First, CGIAR is a global knowledge producer that conducts and disseminates research in the fields of agriculture, forestry, fisheries, policy and environment. Second, the CGIAR contributes to providing international public goods by offering specific products and services that go beyond generating and disseminating knowledge and which entail specific, local application. Third, the institutional capacity for conducting and coordinating international agricultural research that CGIAR has developed can be considered an international public good. This capacity can be deployed to respond to emerging requests or urgent demands, to anticipate future knowledge requirements that can be met by conducting scientific and technological research. The CGIAR also can give policy advice on international treaties, norms, standards and international, regional and national policy instruments. In addition, institutional capacity can eventually allow CGIAR Centers to transform international private goods and local public goods into international public goods.

Box 13.7.1 provides a few illustrations of successful CGIAR activities that have involved CGIAR involvement in both core and complementary aspects of IPG development and delivery. They are taken from one of the contributions to the 2006 Science Council workshop on Positioning the CGIAR on the Research for Development Continuum, and illustrate how CGIAR engagement with local partners can contribute to IPGs by stimulating impacts across countries and stimulating new research of international importance.
Applying an IPG approach to CGIAR governance allows for clear definition and delineation between accountability and direct responsibility levels (core component) and those of influence and indirect responsibility (complementary component) as these apply to
the CGIAR, its partners and others. The IPG approach also furnishes a logical framework within which to address and resolve the perceived dilemma between assigning priority to research and scientific needs (core component) or to development and impact needs (complementary component). This approach has important implications for partnership strategies and for financial arrangements. If donors are to hold the CGIAR accountable and responsible for establishing delivery systems, donors must also ensure that financing is available for the required complementary component activities to be performed by others at national and local levels, either as formal or as informal CGIAR partners. In this light, it can be seen that management for results and international public goods approaches to CGIAR governance are closely linked. This linkage in turn helps to define the dimensions and levels of mutual accountability between donors, the CGIAR Group and users of the results of CGIAR activities.

In its efforts to steer Centers away from the delivery of local public goods, such as training, capacity building applied research and pilot implementation projects, the Science Council has functioned on the presumption that these “complementary” activities will be delivered by partners with no, or very limited, assistance from Centers. Many Centers challenge this Science Council view, suggesting that the partners cannot provide regional and local impact without direct support from Centers and that the CGIAR has a direct responsibility for this. The examples in Box 13.7.1 illustrate the critical role Centers can play through this “complementary” activity. There have been recent efforts by the Science Council to bring these opposing viewpoints together, but this remains a clear example of the lack of a consistent IPG concept across the System.

To summarize, therefore, there are two essential requirements to reinforce and consolidate the role of the CGIAR as a key provider of international public goods in agricultural research in the first decades of the 21st century.

(1) It would be necessary to clearly identify and map the agricultural research IPGs to be provided by the CGIAR System as a whole and by the individual Centers. This is both a scientific and technical and political task, for there must be not only a clear definition of the delivery system and its required activities, but also a high degree of awareness and commitment by all CGIAR stakeholders to fulfill their responsibilities, and a clear assurance by donors that the necessary resources will be available for the delivery system to be deployed effectively.

(2) It is necessary to decide the extent and reach of the core component (Centers) and complementary component (partnerships) of the delivery system, as well as the accountability and responsibility of each. This, in turn, will allow introducing performance evaluation criteria for each IPG and its delivery system, leading to applying Managing for Development Results approaches to the CGIAR System.
13.7.3 The Paris Declaration on Aid Effectiveness Applied to the CGIAR

Since 2000, growing concerns about the impact and effectiveness of international development assistance have led to many high profile initiatives to improve the design and delivery of aid and international development cooperation. The Monterrey Consensus, approved at the Summit on Financing for Development in March 2002, was the first of several international initiatives aimed at restructuring development financing. It underscored the link between development assistance, agriculture and food security by recognizing that: “(development assistance is) a crucial instrument for supporting … agriculture and rural development, and to enhance food security.”

Two follow-up events (Rome 2003; and Marrakech 2004) elaborated on the Monterrey Consensus by adding the operational specifics on aid harmonization and management for development results, thus paving the road for the Paris Declaration on Aid Effectiveness that was approved in 2005 (Box 13.7.2).

Box 13.7.2: The Paris Declaration on Aid Effectiveness

The Paris Declaration on Aid Effectiveness is a landmark international agreement intended to improve the quality of aid and its impact on development. It was endorsed in March 2005 by more than one hundred ministers, heads of agencies and other senior officials from a wide range of countries and international organizations. It lays out a roadmap of practical commitments, organized around five key principles of effective aid:

1) Ownership: partner countries exercise effective leadership over their development policies, and strategies and coordinate development actions.
2) Alignment: donors base their overall support on partner countries’ national development strategies, institutions and procedures.
3) Harmonization: donor’s actions are more harmonized, transparent and collectively effective.
4) Managing for results: managing resources and improving decision-making for results based management of development programs.
5) Mutual accountability: donors and partners are accountable for development results.

The Paris Declaration is a major challenge to the world of development cooperation. Going beyond previous joint statements on aid harmonization and alignment, it sets out practical measures with specific targets to be met by 2010 and definite review points in the years leading up to it. The final Declaration text included commitments not just on the established agenda for harmonizing and aligning aid, but on other areas, including country ownership and results management as well as mutual accountability. It contained clear provisions for regular monitoring and independent evaluation of the implementation of commitments.


The principal focus of the five commitments of the Paris Declaration is on the way bilateral and multilateral donors manage their relations with recipient countries, but the commitments may also be adapted to examine the relationships between bilateral donors and multilateral agencies like the CGIAR. As discussed in Section 13.7.2, the CGIAR Centers receive financial resources to generate international public goods for international development. The delivery and use of these goods depends on the interventions of other
partners at the international, regional, national and local levels. The principles of the Paris Declaration – ownership, alignment, harmonization, managing for results and mutual accountability – can help identify ways of improving the relevance and effectiveness of the CGIAR.

To apply these principles to the CGIAR, it is essential to begin with mutual accountability between donors and the CGIAR Centers. A commitment to mutual accountability requires a combination of organizational structures that can take effective decisions that establish accountabilities of the two main groups of stakeholders: Centers and donors. If such structures are to be established, it is essential to move beyond informal, non-binding understandings. A compact is first required between the main parties (donors and Centers). The compact would need to set out the framework and processes for binding decisions on strategy, strategic objectives, resource allocation and performance management, and reporting and strategic communications.

Putting in practice the principle of mutual accountability requires agreement on a strategic results framework to align results at the CGIAR system, national/regional and local, levels. As CGIAR Centers are primarily engaged in providing international public goods, the framework indicators should focus on the accountability and direct responsibility of the Centers to provide the core component, and on the use of their influence and indirect responsibility to ensure that other organizations take charge of the complementary components of the delivery systems for each IPG. Managing towards results using performance measurement systems consists in guiding and improving performance to meet agreed expectations. Episodic evaluations should inform strategic program and priority setting exercises, and confirm the relevance and validity of performance reports for resource allocation in the CGIAR System and in its member Centers.

The principle of harmonization has to be interpreted in two senses for the CGIAR. First, deriving from program frameworks there is a requirement to adopt common stances and disciplined behavior by donors on enforceable financial commitments. This implies common financial arrangements and an agreement that eschews separate evaluations of the same programs and activities by different donors. Second, harmonization also implies commitments by the Centers to coordinate and engage in collective action initiatives that reduce transaction costs and increase System-Wide coherence. In addition, this implies carrying out agreed programs and activities, establishing common management processes (planning, human resources, audit, information systems). These two aspects of harmonization are integral parts of the compact that would be required to give concrete expression to the principles of mutual accountability and managing for development results.

Alignment between donors and Centers is implicit in the idea of a compact between them. There are two distinct but complementary aspects of the principle of alignment for the CGIAR. First, donor financing should be aligned with a common System-Wide strategic program and priorities framework prepared by the Centers through consultation with
from the donors and other stakeholders. Second, the CGIAR strategic programs and priorities framework should be aligned with international agricultural development priorities, and with the needs, demands and priorities of the national agricultural research Centers, extension services and poor farmers in developing countries. Thus, the alignment principle of the Paris Declaration would require a twin alignment: between donors and the Centers and between both of these and the needs, demands and priorities of the users of the results of activities carried out by the CGIAR Centers.

Finally, ownership throughout the membership of the CGIAR System should result directly from applying the four preceding principles of the Paris Declaration. All CGIAR stakeholders, and in particular the Centers, donors and partners, should share a sense of ownership in the System, which would emerge from commitments to mutual accountability, management for results, harmonization and alignment, thus furthering the sense of common purpose and increasing trust.

13.8 Towards a Re-Balanced Partnership

13.8.1 Design Criteria for Renewing System-Wide Governance Arrangements

The preceding analysis suggests nine criteria that could be applied to designing governance arrangements for a more efficient and effective CGIAR System.

1. Governance decision-making bodies should be empowered to take binding decisions and be given authority to ensure implementation, at least in clearly circumscribed areas and cases that are essential for the appropriate functioning of the CGIAR System. Whatever the fine details of a new governance structure (or structures), the design should ensure that genuine authorities for enforceable decision-making are explicit components of the structures - a significant departure from current CGIAR governance structures.

2. Governance arrangements require a codified legal foundation in order to increase legitimacy and improve effectiveness. The CGIAR is not a start-up enterprise. If it is to increase to a half-billion or even a billion dollar annual operation, it cannot be expected to function efficiently and effectively as an informal club with occasional governance meetings. Formal, legally incorporated bodies with clearly assigned fiduciary responsibility and full accountability are required. This criterion requires establishing membership conditions that are rules-based and that include enforcement mechanisms. This would require agreeing on:
   • CGIAR membership requirements,
   • the rights and obligations of CGIAR members,
   • how different types of decisions would be taken by the collectivity
3. **The CGIAR needs to establish a corporate identity and with it a single “entry point” for others to relate to it and for it to relate to others.** A wide variety of interviews with co-sponsors, donors, the private sector and international civil society pointed to lost opportunities for CGIAR influence, for effective partnerships and for financing because there is no entry point and no authorized leader for the system. A further direct result from the current situation is exceedingly high transactions costs to any organization wanting to work with all or some of the 15 Centers CGIAR System. It largely explains why the CGIAR as a system is absent from or a late entrant to global debates, such as those on climate change and food insecurity.

4. **The functions of governance and management need to be differentiated and a regime established that separates the two functions with clarity and enforceability.** The current CGIAR arrangement has confused these. The roles of donor and manager should be separate to avoid conflicts of interest, and the management and responsibility for operations should be separated from oversight.60

5. **Adequate and predictable financing,** in particular for the IPGs that the CGIAR provides, is required to allow the Centers to attract and maintain a cadre of high caliber scientists to tackle mid and long term scientific challenges. This is not to suggest, however, that financing of the CGIAR is, as some Centers have suggested, an entitlement. Donors have many choices and an increasing number of alternative channels for assignment of their financing. Predictable and adequate financing must be earned by all recipients; the Centers are no exception. The arrangements and structures for such financing must also take full account of the need for donors to demonstrate results and value for money. Nevertheless, if the international donor community wants a robust and relevant CGIAR system, it should be expected to deliver on its Monterrey commitment of adequate and predictable financing. This will require new arrangements of much greater flexibility that are based mainly on ambitious strategies and programs and far less on individual projects. The linkages between strategy, program and financing would also need to address not only the financial needs of CGIAR Centers and System-Wide bodies but also how to mobilize the partnerships and financial resources for the complementary component activities of IPG delivery systems.

6. **Paris Declaration principles should be applied to the CGIAR.** This would include:

   - A rules-based regime to bring about **harmonization** in the types and conditions of the finances provided to the CGIAR.
   - Application of the principle of **alignment.** This would mean strategic and programmatic alignment between (i) the needs and priorities of developing countries and (ii) the proposals of the Centers and the support provided by the
donors. This implies clear divisions of responsibility and of labor. The responsibility of the Centers would be to formulate strategic frameworks that clearly reflect the needs and priorities of their developing country partners and the concerns and priorities of donors.

- **Achievement of the principle of ownership.** This implies, that all stakeholders should hold some sense of ownership for the efforts made and results attained through an international partnership. It also means, however, that, the primacy of ownership needs to be accorded to the entities most directly responsible and accountable for delivery of results. This is clearly established in the Paris Declaration as the country. Applying this to the CGIAR would require primacy of ownership by the Centers.

- **Stipulation of specific requirements and arrangements for mutual accountability.** The Paris Declaration has operationalized this by the partners undertaking “mutual assessments of progress in implementing agreed commitments on aid effectiveness…” Applied to the CGIAR, this would require donor assessments of Centers’ progresses and performances and Centers’ assessments of donors’ performances. In both cases, Centers and donors would need to stipulate and agree to the required norms, standards and metrics for assessments in advance through a results framework.

7. **A fully independent evaluation function needs to be put into place.** Consistent with established best practice, a fully independent evaluation function would need to be built into the governance structures. The current role of evaluator exercised by the Science Council is incompatible with its role as counselor, advisor and honest broker on scientific excellence. These two roles should be separated.

8. **Governance structures and processes should guarantee that the CGIAR maintains high standards of excellence in research, while ensuring that the CGIAR outputs are used by key partners to achieve development impact.** This would require establishing organizational arrangements and processes that transcend the apparent contradiction between focusing on scientific excellence and research achievements on the one hand, and giving priority to achieving development outcomes and results on the other. An international public goods approach to CGIAR activities that distinguishes between the core and complementary components of the delivery systems could help to resolve this apparent contradiction. Again, this does not imply that Centers have no role in complementary activities, but rather that conceptual and strategic approaches need to address the need for both core results and complementary results.

9. **Political viability** is essential to new governance arrangements. This implies that reform proposals should appeal to and be acceptable to the key players in the CGIAR community, and that a plan to implement the proposed governance reforms should be agreed to and supported financially.
13.8.2 Applying the Criteria: Suggested Implications for System-Wide Governance Reform

In looking to the future, the Panel begins by reaffirming one of the first conclusions of its review: the CGIAR represents a unique and valuable partnership that should be preserved and strengthened. The corollary conclusion is that a fundamental transformation in governance is essential to achieve this.

Also, in considering the details of the required transformation, the Panel also wishes to be clear that there is no perfect governance model for institutional configurations as complex as those of the CGIAR. If the criteria outlined above are accepted, however, it follows that a rebalanced partnership must require the Centers to function as a true international public good system and to empower them to do so. It must require that they establish a single entry point and assume and act with collective accountability. They must develop and take collective ownership of strategic frameworks, establish clear priorities and demonstrate on a continuing basis their worthiness of financial support. Equally, the criteria require the donor side of the partnership to apply the principles, or at least the general spirit of the principles, they espouse and to which they committed themselves under the Monterrey consensus and the Paris Declaration. The confusions inherent in the existing structures have often led donors to think and act as if they were the owners of the legal entities of the CGIAR (the Centers), which they are not. The same confusions have led individual Centers to regard donor funding as an entitlement, which is certainly not the case.

There is, to repeat, no perfect governance model that can be pulled off the shelf and applied to the CGIAR. If the outlined criteria are accepted, however, most models are quickly and self-evidently eliminated. For example, any new arrangement that would serve to reduce or weaken the partnership is immediately eliminated. This includes a corporate model of governance, such as that proposed in the Third System Review, which would make the Centers subsidiaries to a corporate Board. Also, the defects of the current model are so numerous and intractable that, however enhanced, the status quo is not an option. Application of the criteria requires a fundamental reconfiguring of the CGIAR partnership, leading to a new, re-balanced partnership based on mutual accountability with rules of membership that are respected by all and enforceable.

The key questions donors need to address are what kind of CGIAR they wish to see and what incentives they are prepared to commit to achieve this. The current donor discussions place a high priority on the harmonization principle of the Paris Declaration. Donors also call on the CGIAR to bring about harmonization across its activities. The problem is the dominant donor behavior towards the CGIAR involves incentives that have pushed more toward fragmentation than toward harmonization. This is less a matter of restricted versus unrestricted financing than a financing pattern that is weighted heavily
towards short-term individual projects, most of which are relatively small. Some Centers manage 200 to 300 separate projects with widely varying requirements for expenditure authorization, reporting requirements, overhead rates and audit specifications. Much of the funding for these programs was generated strictly by opportunism (i.e., by Centers seeking funding wherever it could be found to keep the enterprises afloat). However as much the Centers would wish to move away from the tenuousness and non-strategic nature of such funding, they perpetuate it themselves (to greater or lesser degrees depending on the situation of each Center) because not to do so risks financial deterioration and possible insolvency from their perspectives.

As a result of this situation, Centers distrust donor calls for large, integrated strategic approaches to research. It also results in a “tragedy of the commons” situation where the self-interested action of an individual agent damages the collectivity and eventually the individual agent. Major changes to this harmful situation are unlikely unless the financing system of incentives is modified significantly. A continuous default to Center independence will continue to be viewed as enlightened self-interest unless donors furnish a new and trusted framework of incentives.

To resolve this impasse, the Panel recommends a new financing scheme focusing on agricultural IPGs financed mainly with resources from a Pooled Financing Framework is necessary. Box 13.8.1 provides an indicative outline of the framework. It points to four channels or windows, the first three of which would apply to donor members of the CGIAR and the fourth to non-members.

**Box 13.8.1: Illustrative Structure of CGIAR Financial Arrangements**

<table>
<thead>
<tr>
<th>Illustrative Structure of CGIAR Financial Arrangements</th>
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<tr>
<td>As an illustration, an appropriate set of financial arrangements for the CGIAR could comprise four main windows:</td>
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<tr>
<td>(a) Assured long-term financing mechanisms to guarantee the provision of high priority international public goods on a permanent basis. This type of funding is required, in particular, for the creation, expansion and maintenance of gene banks that are essential for biodiversity conservation. Current financing arrangements at the CGIAR for this purpose are inadequate. Although a hypothecated trust fund (the Global Crop Diversity Trust) has been established, it is not yet at the level required to meet annual costs. Thus, the well-being of this public good is also dependent on seeking annual contributions from donors. Financing for these international public goods should be guaranteed and be considered quite independently of arrangements for other IPGs and activities performed by the CGIAR.</td>
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<tr>
<td>(b) A Multi-Year Program-Based Financing Structure which, consistent with the principles of the Paris Declaration, should comprise about two thirds of overall CGIAR resources, excluding the endowment fund mentioned in (a) above. Financing for this component would be provided on a rolling three year basis and determined against a Strategic Program and Results Framework for the provision of international public goods. The framework, which might include a component for “blue sky research”, would be developed by the Centers in consultation with donors and other stakeholders, including</td>
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**Illustrative Structure of CGIAR Financial Arrangements**

- **Independent scientific, technical and development advisors**, would establish performance indicators for each proposed program. Donors could choose to assign their pledges to the entire program as fully unrestricted contributions or to specific strategic program components, but – again consistent with the Paris Declaration – on a program basis and not to individual projects.

(c) **Specific purpose project funds earmarked to individual Centers** (or to project-based partnerships between Centers) would fall outside the specifics of replenishment agreements, but projects would be expected to demonstrate full cost recovery as well as consistency with the approved Strategic Program and Priorities Framework. To assure such consistency and prevent free ridership problems, transparent disclosure of all such projects between all Centers and to the CGIAR membership would be essential.

(d) **Donations from non-CGIAR member sources**, whether public or private, would be expected to be consistent with or complementary to the Strategic Program and Priorities Framework approved for the replenishment and full cost recovery to avoid cross subsidization and free riding. Such funding, therefore, should be guided by System-Wide adoption of clear, transparent and enforceable rules, including application of System-Wide management for results, performance evaluation approaches and risk management procedures.

The first window would address the need for a long-term financing mechanism to guarantee the permanent provision of high priority international public goods. This applies to a relatively modest but vital proportion of CGIAR activities and mainly to the creation, expansion, and maintenance of genebanks as a permanent service to humankind. The role of the CGIAR in genebanks is an explicit component of the executive safeguarding of the International Treaty on Plant Genetic resources for Food and Agriculture (IT PGRFA). This Treaty, whose purpose is to ensure the use of plant genetic resources based on the principle of easy access and exchange, is consigned by international agreement to the Food and Agriculture Organization (FAO). Under the Treaty, responsibility for the world’s most important gene bank collections, around 600,000 samples, is assigned to the CGIAR. For the CGIAR and the FAO, however, the financing arrangements to safeguard the Treaty and its component parts remain incomplete. The Treaty already has a mechanism for funding genetic resources collections: the Global Crop Diversity Trust set up jointly by FAO and the CGIAR. To date the Trust has raised funding pledges of more than $140 million. Of this, more than $100 million is in the form of an endowment, generating an annual income of about $4.5 million. The original target for the endowment, however, was $260 million, leaving a large gap in the financing required to assure the safeguarding and continuous development of this international public good.

The result is that implementation of the Treaty is still largely dependent on annual donor contributions. This situation is at fundamental variance with the nature of international public goods. Financing for these international public goods should be guaranteed, should be based on a careful study of recurrent cost requirements and should be considered independently of arrangements for other IPGs and activities the CGIAR performs. A possible approach to close the financing gap, in addition to continuing efforts to expand
the size of the endowment, could be through an annual assessed contribution of all signatory countries to the Treaty, channelled through the Global Crop Diversity Trust.

The second window should be multi-year, program-based. Financing could be provided on the basis of a replenishment-type model or reasonable variant of it. This would become the dominant form of financing of the CGIAR. There is, of course, no single agreed model for the financing of international development organizations. Many of these, including most United Nations development institutions function on the basis of annual or biennial pledges, often supplemented by an agreed indicative financial planning framework for future years. The indicative framework has no legal or binding status, but serves as a moral commitment. Indicative indications have often failed to materialize, especially in the 1990s when donors faced downward budget pressures and attention should be accorded to collective action arrangements to minimize this risk. In spite of attendant risk factors, however, it has long been recognized that multi-year arrangements are far destabilizing than annual pledging sessions.

To overcome the adverse attributes of annual pledging, the international community established, starting in the 1960s, replenishment system for the financing of the soft lending windows of the multilateral development banks (MDBs). Replenishments function on the basis of an agreed cycle of three years for most of the MDBs, although a four-year cycle was agreed for the Asian Development Fund. The advantages of this system over that of annual pledges include *inter alia*:

- A more formal and disciplined mechanism for donors and program countries to focus sharply, and agree every three to four years, on mandates, operations, activities and priorities;
- A framework for agreeing on eligibility and allocation criteria for the use of resources provided;
- A legally binding framework for ensuring that the resources pledged will be made available within a conscionable period of time;
- Securing in a more robust manner predictable and assured annual resource flows over three to four years, thus making it more possible to design and manage strategies and programs on a more sustainable footing over the medium-term;
- A higher profile and more senior political attention by donor agencies because the amounts of money involved are substantial and multi-year;
- Providing a framework under which different donors are encouraged to pull their relative weight in a fairer and more equitable manner through contributions that relate in some way to respective economic capabilities.

Replenishments, however, are not quick-fixes or panaceas that entirely resolve uncertainties in financing. Without political will, the replenishment model may pose as many problems as voluntary contributions. A replenishment that is not welcomed may cause donors to commit to amounts that are very low. Also, replenishments can establish
benchmarks at the “lowest common denominator” rather than the “highest common multiple.” Wishing to avoid creating free rider problems, donors have often been inclined to set their contribution at a low level in order to accommodate benchmarks set by the least generous donors in relative terms.

Whether it is termed replenishment or given another name, the principles of multi-year financing on the basis of ambitious strategies and aligned programs should be applied to the CGIAR. This would be consistent with the Paris Declaration principles of alignment and harmonization.

The Panel’s first preference would be to see the CGIAR financed on the basis of the triennial replenishment financing model that applies to IDA, the regional development banks and the Global Fund (for the Fight Against AIDS, Tuberculosis and Malaria). Financing would be renewed every three years through replenishment negotiations between donors and Centers. The Panel recognizes, however, that replenishments impose intensive, time-consuming effort and high transaction costs on donors. For this reason, many donors are reluctant about increasing the number of replenishments. On the other hand, annual financing arrangements have the effect of transferring much of the high transact costs of a replenishment from donors to the organization or country seeking financing. Consideration to both sides of the picture leads the Panel to recommend that the emphasis should be placed on multi-year financing modalities, whether these are achieved via formal replenishments or alternative and more flexible approaches.

Accordingly, the Panel proposes establishment of a new fund, the CGIAR Fund for Agricultural Research (CFAR) as the most appropriate instrument to bring this about in the CGIAR. The monies assigned to the Fund would be determined through iterative exchanges based on a consolidated strategic framework proposal prepared by the Centers. As in a formal replenishment model, this would include an evaluation or assessment of performance and progress over the previous strategic period, a proposal for the next three years with milestones, financial requirements (i.e., clear linkages between means and ends) and reporting obligations. The new fund would be held under trust fund conditions by the World Bank under conditions to be agreed between contributors and the Bank. Should new financing mechanisms emerge over time such as the “International Financing Facility”, supplementary arrangements might be required. Whatever the final details, the fund would need to be based on multi-year donor commitments in support of a medium-term strategy and with milestones and measurable outcomes within a three-year program framework. An appropriate governance structure for the Fund would need to be established for it to receive, manage, allocate, assure due diligence and fiduciary responsibility.

The aim should be to secure approximately 66 percent of CGIAR financing on this basis. This would be consistent with the Paris Declaration donor objective of assigning that percentage of total financing on a program basis (i.e., not project assistance) by 2010.62 As
donor practice is to report all contributions they make to multilateral organizations as program financing, a 66 percent target for the CGIAR would be consistent with existing practice.

As indicated, the second window should make up approximately two-thirds of CGIAR financing. Much of the remaining one-third would stem from a third window of specific purpose project funds provided by CGIAR members to individual Centers. This will involve two principal challenges. The first is to ensure that project financing does not divert efforts and resources away from the strategic and programmatic framework agreed for the three-year replenishment financing. The second is to avoid problems of cross subsidization and free ridership. These challenges have been explicitly recognized by the international donor community in the Paris Declaration. To address these in the CGIAR, it is recommended that Centers and donors take steps jointly to demonstrate the ways in which individual projects fit within or complement the approved Strategic Program and Priorities Framework. To assure this practice across the CGIAR System, projects should be subject to full and transparent disclosure to the CGIAR membership, including the Board of CFAR. At the same time, all such projects would be required to demonstrate full cost recovery to avoid cross subsidization and problems of free riding.

The fourth window would involve contributions from non CGIAR members. These contributions, whether from public or private sources, would be expected to be consistent with or complementary to the Strategic Program and Priorities Framework approved for the replenishment and full cost recovery to avoid cross subsidization and free riding. Such funding, therefore, should be guided by System-Wide adoption of clear, transparent and enforceable rules, including application of System-Wide management for results and performance evaluation approaches. Centers may be called on to provide contractual services on commercial consultancy bases. Payment for consulting and other services provided by the Centers should follow System-Wide rules and regulations on the terms and uses of funds (e.g., percentage of overhead charges, contributions to Center and System-Wide reserves, risk-management procedures).

The foundation of the above proposal with its four windows requires that the Centers produce a collective Strategic and Priorities Framework that truly addresses global challenges, situates and establishes clearly the CGIAR comparative advantage, stipulates performance and measurement criteria standards and milestones, including those of cost-effectiveness, addresses means-ends linkages and demonstrates the fiduciary and due diligence requirements for accountability. A question asked frequently to the Panel has been whether the Centers can achieve the collective action that this would require. The Panel concludes that the probabilities are that they can, but only if challenged to do so with the right incentives and given the space and structure required. One substantial success of the evolutionary process which has led from the CDMT is the demonstration of the potential and the capacity of Centers to work together in a programmatic fashion, and their ability to engage external partners in this activity. Challenge Programs, SWEPs, and
the efforts of the Alliance have all contributed to this evolution. The challenge in the view of the Panel is to put the system to the larger test.

**13.8.3 Recommendations for Systems Governance Structures: A Re-Balanced Partnership**

Application of the above financing framework to the CGIAR would require new System-Wide governance arrangements structured on the basis of a re-balanced partnership between Centers and donors. To achieve this, the Panel proposes establishing two distinctive and complementary decision-making bodies (a new Consortium of Centers and CGIAR Fund for Agricultural Research) and two support bodies (one to provide independent scientific or technical advice and a second to furnish independent evaluation of performance, outcomes and results). These would be complemented by a triennial assembly of all stakeholders.

**The Consortium of Centers**

Building on the conclusions and recommendation of prior studies (reviewed in Section 13.2) and the lessons learned from past efforts at reform, the Panel recommends a new legally-structured consortium. Its Board would be assigned clear decision-making authorities, fiduciary and due diligence accountabilities by member Centers and its decisions on all delegated matters would be binding on its members. Ordinary resolutions and executive resolutions might be structured to require different majorities, but that would be worked out during preliminary consultations. The consortium would be rules-bound. Should new research organizations appear over time, the rules should allow for new and expanded membership (i.e. it should not be structured on the basis of a closed shop).

The Board of Trustees of the Consortium would comprise twelve to fifteen members. One possible configuration would be a Board of fifteen made up of five each from the following categories: (a) eminent researchers; (b) development professionals; and (c) other eminent persons with relevant experience in financial management, GFAR representation, farmers’ organizations, civil society organizations, the private sector. Knowledge of the CGIAR would be an important competency. The template for Board membership should also accord importance to achieving a balance between developed and developing countries and gender. Trustees would be appointed for three year terms, renewable for a second three year term. To achieve a balance between continuity and renewal, however, the first Board would appoint Trustees on a differentiated basis of one-third for two years, one-third for three years and the remaining third for four years.

It would be essential that Board members have the confidence not only of the Centers but across the entire partnership. It would be expected to apply the highest standards of
transparency and best practice in identifying, reviewing and consulting on new trustees. It would be especially important that the individuals nominated have the confidence of all CGIAR stakeholders. NARS could be consulted in this regard through GFAR). Final appointment to first board would be by collective vote by the Centers.

The demands for such a Board would need to be taken into careful account. It seems probable that something in the order of a one-third of full-time commitment would be needed. Appropriate remuneration would be essential. Donors would not serve on the Board as this would constitute a conflict of interest. The Chair would be elected by Board members. The Chair position would probably require up to 50 percent of that person’s time.

The main functions of the Board would include, among other things, the need to:

- Undertake System-Wide strategy development in collaboration with the Fund and the entire range of CGIAR stakeholders; prepare aligned strategic framework proposals for multi-year financing, including desired, measurable outcomes and performance indicators.
- Achieve cost-efficiency across the system and bring about administrative and structural alignment. The issue of the number of Centers and their alignment would be addressed systematically and would derive from the criteria of effectiveness, comparative advantage, strategic framework and cost-efficiency.
- Oversee all functions of the current System Office, including intellectual property, information, internal audit, human resources, gender and diversity, strategic communications and most of the administrative support functions currently conducted by the Secretariat.
- Appoint a full-time Consortium CEO following an open, international competition. The CEO would be charged with the operations of the Consortium as a network. She or he would be assigned responsibility for the management of the Consortium Office and would serve as the principal point of entry to and chief spokesperson for the Consortium. The details of the administrative structure would require further study, but final disposition would be a matter of detail to be worked out by the first Consortium CEO, in collaboration with the Board and individual Centers.
- Establish standardized and unified standards of accounting; exercise full fiduciary responsibilities over funds assigned to the Consortium, including reporting on these as required and as established by financial best practices.
- Establish and ensure compliance with System-Wide policies in all areas: financial, managerial, human resources, administrative.

**The CGIAR Fund and Its Council**

A new instrument, the CGIAR Fund, would serve as the key forum for resource mobilization to support agricultural research as an international public good. It would
situate itself squarely within the established principles for consultative groups. The new CGIAR Fund for Agricultural Research would be established under a governing body (the Council) that would receive, hold, commit and allocate financial resources assigned to it in trust. This would be principally a shareholder governing body made up of contributing members, including foundations. An option would be to assign voting shares on the basis of groupings (constituencies) to accommodate both large and smaller shareholders. It would work to ensure follow-through on financial pledges, to receive and hold funds provided to the Fund and to make funds available to the Consortium In making funds available, it would apply the conditions and schedules agreed in multi-year financing discussions, including performance and results based reporting, milestones and benchmarks. Together with the Board of the Consortium, it would be responsible for ensuring that transparency and full cost recovery are applied to all financing agreements falling outside of the Fund. The Council would probably need to meet quarterly, with more frequent, as required, for multi-year financing discussions.

The leadership of the World Bank in consultative group arrangements argues strongly that the Bank should assume the leadership of this revitalized and modernized body. The Bank’s convening power to bring donors and non-donors, foundations, trans-national civil society and multinational business together would be an essential ingredient of success. The Panel recommends that the World Bank should serve as the Chair of the Council.

The two main structures proposed (the Consortium and the CGIAR Fund) would resolve the ambiguities of the current situation imposed on the Bank whereby it serves simultaneously as governor and manager, resource mobilizer and administrator, advocate and gatekeeper. At the same time, the model would strengthen the role of the World Bank as convener, Chair of the Consultative Group and Chair of the Council. The main functions to be carried by the CFAR would include:

- To establish a multi-year financing mechanism on the lines recommended in this report and based on the Monterrey principles of good donorship (adequacy and predictability of financing and mutual accountability for results). The aim should also be that such financing should equate approximately two-thirds of total CGIAR financing by 2010. The CGIAR Chair would exercise collective leadership in the regard and would provide oversight to establishing the CGIAR Fund.
- To approve transfers from the CGIAR Fund to the Consortium based on agreed schedules, performance based indicators, targeted milestones and reviews of the specific program proposals that would follow from the strategic framework of a replenishment.
- To ensure accountability and standards of due diligence over all funds held and assigned to the Consortium.
Support Bodies

Two bodies structured to furnish independent, professional advice would support the proposed Consortium Board and the Council of CFAR. These bodies would be:

- **Science Advisory Board**: This would take up those functions of the current Science Council that are solidly service based and that aim to furnish both the CGIAR Fund and the Consortium with the highest caliber of scientific counsel, including the results of foresight exercises to keep the work of the rebalanced partnership “ahead of the curve” on the needs of science for development. This body, which could continue to be called the Science Council, would provide the CGIAR System with scientific and technical advice and would be a broker to mobilize science and technology for agricultural development. As required by the Consortium, it would also provide support in the formulation of strategy and program proposals. It would not, however, carry out performance evaluations, as is the current practice of the Science Council. This is at fundamental variance with accepted best practice as it has placed the Science Council in a conflicted position, whereby it provides scientific and programmatic advice, mandates programmatic norms and standards and evaluates performance arising from its advice but without responsibility of accountability for the performance.

- **Independent Evaluation Unit**: The CDMT review recommended that the CGIAR require an evaluation body to undertake fully independent evaluations as the foundation of systematic performance feedback to Centers and donors. CGIAR would report to the Council and, initially, it would be expected that most evaluations would be subcontracted but with supervision provided by one or more (but only a few) permanent staff members. The Evaluation Director would develop work plans with the input of the Consortium, the Fund and partners for tracking performance of the CGIAR towards the agreed strategic objectives and desired programmatic outcomes and impacts defined in the strategy and the results framework. It would report on progress on development effectiveness, sustainability and partnership at all levels of the CGIAR partnerships’ activity. It would follow donor agreed guidelines for evaluating global programs. It would work to reduce transactions costs for the Centers by working towards joint evaluation missions. It would report triennially on its own results and yearly on the evaluation results of the products set out its multi-year strategy and on the implementation of the previous study recommendation. The program would also cover “process evaluations” to cover process effectiveness as well as investment effectiveness. It would do System level reviews of the three strategic objectives and would undertake a whole systems review every 4 to 5 years.
Joint Institutions

The partnership would maintain at least four shared institutional arrangements:

1. A joint strategy and results framework reviewed, updated and reformulated for multi-year financing discussions.

2. The independent evaluation unit already referred to. It would report to the Council of the Fund, but would also work closely with the Board of the Consortium.

3. The proposed reformulated Science Council made up of a committee of eminent advisors and including anti-poverty expertise as well.

4. A Triennial General Meeting of all stakeholders, organized and co-chaired by the chairs of the Fund and the Consortium to present and seek feedback on strategies and programs and to review all matters of interest to the well-being of the CGIAR partnership. This could also seek to bring together the leaders of the leading organizations concerned with agricultural R&D, food security, the interface between agriculture and natural resource sustainability and major international research networks.

Figure 13.8.1: Preliminary Model
13.9 Governance of the Independent Centers

Under the new Consortium, the Boards of the individual Centers would continue to exist while the new structures were put in place and until decisions are taken on mergers. At the same time, however, individual Centers Boards would be required to delegate authority to the new partnership Board to set common policies and decide on the System-Wide strategy, to establish common policy frameworks for administration, general management, financial accounting and reporting, and so on. The issue of the role of Centers Boards is linked in the minds of many donors, to the number of Centers. As discussed earlier, there have been many calls over the past two decades for radical consolidations and mergers.

The Panel is unable to comment on the merits of different proposals for new groupings of Centers against geographic, functional or type of science criteria. The Panel believes that issues of mergers or consolidations should be addressed and resolved through the new and empowered decision-making bodies that it has proposed. Also, the delegations of authority from individual Center Boards to the new Consortium Board should serve as the essential catalyst to rationalizations and consolidations, especially as confidence grows in the new arrangements and its benefits they bring. In addition, a recurrent theme among several of the CGIAR’s main donors is that overall CGIAR governance is not cost-efficient when the combined costs of systems governance and those of individual Boards for 15 Centers are considered. The cost of governance depends, of course, on what is included in the calculation. The direct costs of the governance of Centers Boards, for example, could be computed to include only the costs associated with the Board members themselves. If the costs of preparation and those associated with the governance support work of Directors-General are included, one arrives at a different result.

To the best of the knowledge of this evaluation, there have been no studies of comparative governance cost effectiveness that relate to the CGIAR. The 2007-2008 Facilitated Change Process exercise under Working Group III (WGIII) examined governance and organizational structure practices in other organizations that are either in a similar research business (e.g., National Institutes of Health in the U.S., Grain Research and Development Corporation in Australia, Biotechnology and Biological Sciences Research Council in the U.K) or global programs (e.g., Global Forum for Health Research, Global Development Network, European Distributed Institute of Taxonomy, Global Environment Facility, and the WHO Special Program for Research and Training in Tropical Diseases). This evaluation looked at governance arrangements for the Global Fund (for the Fight Against AIDS, Tuberculosis and Malaria), the Global Alliance for Vaccines and Immunization and the International Union for the Conservation of Nature. The Panel agrees with the WGIII conclusion that each of the organizations examined has a unique governance and organizational structure that has evolved over time. None of them is
useful when examining the comparative cost-efficiencies of governance and none could serve as an exemplary overall model for the CGIAR.

Despite the absence of useful comparative data, two points are clear. First, the number of “governors” or trustees involved with the CGIAR is quite high relative to the overall budget. A budget of about $450 million and 138 trustees on Centers Boards yields a ratio of one trustee for each $3.2 million. If the 21 members of ExCo are added to this the ratio becomes 1:$2.8 million.

Second, it is a certainty that many of the CGIAR’s main donors will continue to expect consolidations and demonstration of major cost-effectiveness gains over the next few years and that this will be a factor in decisions of their levels of financing. The view of the Panel, therefore, is that the reality of total governance size and costs is a matter that the new Consortium must address as a very high priority.

As to the corporate governance of the individual Centers, this was the subject of an extensive independent review in 2005-2006. The main conclusion of the report was that, “while the governance practices of boards compare favorably with global best practices in some respects, the challenge for the CGIAR is to remedy the areas of weakness and uneveness of practices...” The report made 32 recommendations to improve the composition (more managers and financial specialists), size (smaller) and cross membership of Boards, and to increase effectiveness through more frequent meetings and strengthened financial oversight and succession planning. While this report is quite recent (only two years old), the data gathered in this evaluation suggest that most of its recommendations have been taken seriously and have either been implemented or are advancing towards completion. The size of Boards, for example, has decreased by over 40 percent over the past few years from 238 in 2003 to 138 in 2007. Some boards (e.g. IRRI and CIMMYT; Africa Rice and IITA) now have board members in common.

The collective response of Chairs to the STRIPE review concluded: “…the STRIPE Review process is a very good first step towards improving governance in the CGIAR System (but that) to date, the burden of increased accountability has fallen disproportionately on Centers and their Boards.” This evaluation agrees with this assessment and with the following sentence in the response of Alliance Chairs: “Attention should now be given to improving the governance of the other organs of the System, clarifying each component’s accountabilities and responsibilities and to reducing System transaction costs.” If implemented, the Panel’s recommendations for a rebalanced partnership should address these matters.
13.10 Making the Change: the Need for a Compact and Specific Transition Arrangements

Previous attempts at effecting significant structural changes in the CGIAR have been largely unsuccessful. As has been demonstrated, the principal barrier has been the absence of bodies entrusted and empowered to decide for the membership. The result of this has been an aggregation of loosely connected structures that lack authority for decisions and that generate high transaction cost burdens and that contribute to a climate of distrust and resentment. The System is at the same time over-governed by the myriad requirements imposed by the dysfunctionality of its structures and under-governed by the non-binding nature of decisions and the absence of clear accountabilities for success or failure.

The view of this Review is that this points clearly to the conclusion that the CGIAR’s defects can only be corrected and its potential realized through basic structural change. This is a case where function needs to follow form and not the other way around. It is true that management theory generally affirms that form should flow from function, but management literature also shows that form must be in place to decide on function. In the case of the CGIAR, the structures needed for decision-making do not exist. Because of this, it will be essential first to put in place the required structures which allow leaders to decide on overarching strategy with clear measurable strategic objectives, aligned allocations and a results framework to demonstrate progress.

This evaluation has also concluded from the history of attempted and unsuccessful reforms that the changes needed in the CGIAR cannot be realized if entrusted to incremental approaches like those attempted through the CDMT. CGIAR history indicates that the large inertias and fundamental lack of trust in this system will doom such approaches to further failure.

Implementing the design for renewed governance arrangements at the CGIAR proposed in the preceding section requires that various initiatives converge. Considering the experience of inconclusive or failed past reform efforts, this section outlines a governance renewal implementation strategy that aims at surmounting the obstacles they have faced.

Overcoming inertia and effecting change in CGIAR governance requires a combination of: (i) a major restructuring of System-Wide governance bodies to be agreed by the major parties all at once and as soon as possible, with (ii) a series of detailed step-by-step, but tightly time-bound, implementation measures to be adopted over a period of a few months with clear milestones. A Compact between the key CGIAR players (donors, Centers and the World Bank and cosponsors.) would give concrete expression to the agreement on new governance arrangements and on the way they will be put in place.
The Compact needs to begin with clear acceptance that the founding principles of the CGIAR, at least in their present form and expression, need to be abandoned. Consensus decision-making as it has been practiced in the CGIAR has involved multiple conflicts of interest. Consensus decision-making has led to and reinforced fundamental misunderstandings by which donors act as though they are the owners of the Centers (which they are not) and Centers act as if donor financing were an entitlement (which it is not). The Compact needs also to be clear at the outset that the starting point is to address and correct the structural problems that arise from affirmation of donor sovereignty and Centers independence.

The Compact would be launched with two simultaneous initiatives: creating an improved CGIAR in the form of a CGIAR Fund) that would evolve from the Group of donors now in existence, and establishing a legal consortium of CGIAR Centers that would evolve from the Alliance. Both of these bodies would represent the two main groups of stakeholders in the CGIAR. Two small task forces, working separately but in close coordination, will be required to work on the specific arrangements for establishing the Fund and the Consortium and to present final proposals to an Inaugural Forum for the launch of the Compact.

The Task Force in charge of designing the Fund would be chaired by the World Bank. It should comprise a small group of six persons, three from the donor community (including the Bank) and three independent members acting in personal capacities. It should be given no more than eight months to establish the foundations for the new Fund. It would also need to broker a two-year bridge or transition financial package while all aspects of the Compact are finalized. Once the Council of the Fund is operational its initial task will be to negotiate and manage the first multi-year financing package that will provide resources to the Fund.

The task force in charge of designing the formal structure of the Consortium would be led by a Chairperson designated by the Centers and comprised of six members (three from the Centers and three independent members acting in personal capacities). It should be assigned a maximum of eight months to formulate the details for legal incorporation in a jurisdiction that it would determine in consultation with the Centers. There would appear to be three distinct possibilities: Rome, where the major multilateral food and agriculture organizations are headquartered; Nairobi, where all Centers have representation in one form or the other or Washington which allows close proximity to the resources and convening powers of the World Bank. The legal incorporation document for the Consortium should establish clearly its functions, powers, authority, responsibility and the accountability of its Board. This document would also specify the matters in which the individual Centers would delegate decision-making authority to the new Consortium. The Boards of the individual Centers would be required to pass a resolution on the Consortium Agreement, which would come into effect once a qualified majority approved it. Once the Board is established, its initial tasks will be to undertake the first System-Wide
strategic planning process, prepare the program of activities and the proposals to be financed with resources from the interim CFAR, propose programmatic transition arrangements, and to establish performance indicators and measures. As an integral part of this, it should conduct a review of the number and costs of Centers and resolve the structure of these within a two-year period.

Other System-Wide bodies, including the Science Advisory Board, the independent evaluation unit, the Secretariats and other System-Wide support structures, will be established by the Boards of the CFAR and of the Consortium as soon as they are formally constituted.
Notes

1 A system or organization can be held directly accountable for its performance in terms of attaining goals, achieving objectives and producing outputs to the extent that it exercises control over the various inputs (resources, processes, components) that are necessary for these purposes. To the extent it does not control these inputs but can exercise influence over those who do, a system or organization can be held responsible for its performance in terms of contributing to generate intermediate and final outcomes. Accountability and responsibility are both linked to the exercise of power an authority to fulfill the mission and approach the vision of a system or organization.


5 Source DAC.


7 For the merger decisions see Proceedings of the 1993 Mid-Term Meeting of the CGIAR, Puerto Rico. www.cgiar.org/corecollection/docs/csop0593.pdf


10 www.cgiar.org/corecollection/docs/lucsop.pdf pp.9-12

11 Ibid. page 10.


13 The Third System Review recommended that the following stakeholders would have the power to elect a certain number of central Board members each: members from the South (up to 6 persons); the North (up to 6); the private sector (up to 3); the NGO community (up to 3); institutions and foundations (up to 3); and co-sponsors (4).

14 It was proposed that the TAC Chair would also be an ex-officio non-voting member.

15 A list of reasons given by members for rejecting the main recommendation of the Third System Review is provided by the proceedings of the following annual meeting. www.cgiar.org/corecollection/docs/icw98sop.pdf


17 The TAC seven planks were: (1) people and poverty focus; (2) modern science; (3) geographic priorities should be sub-Saharan Africa and South Asia; (4) regional approach to research; (5) new partners in science and development; (6) task force approach; and (7) catalytic role.

18 The Working Group’s mandate was to make proposals on “The Role, Responsibility and Accountability of a Possible CGIAR”.

19 www.cgiar.org/corecollection/docs/Federation.pdf


21 Dr. Margaret Catley-Carlson
Independent Review of the CGIAR System

22 Designing and Managing Change in the CGIAR: Report to the Mid-Term Meeting, 2001 (April 2001) www.cgiar.org/corecollection/docs/mtm0105.pdf
23 Ibid, p.21
26 The co-Chairs were Paco Sereme (Ex. Sec., CORAF/WECARD), Per Pinstrup-Andersen (Chair, Science Council), H.-Jochen de Haas (Chair, EIARD) and Moise Mensah (Benin)
28 Ibid.
31 Ibid., page 1.
33 Personal communication, Director-General, June 2, 2008.
36 Paragraphs 67 and 68 of the CGIAR Charter.
42 Ibid, page 22.
43 Central Advisory Service-Intellectual Property.
44 Association of International Agricultural Research Centers.
48 Ibid, page 3.
49 www.cgiar.org/externalreview/CGIAR_Reform_Pogram.pdf
51 Ibid, p.45.

Chapter 13 Governance 2002-2008 and Beyond


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59 Progress indicator 9 of the Paris Declaration states that by 2010 66 percent of total aid flows “are provided in the context of program based approaches.”


61 Ibid.

62 Indicators of Progress http://www.oecd.org/dataoecd/57/60/36080258.pdf


Washington, DC: CGIAR.

64 Ibid, page 1.

CHAPTER 14
RESOURCE MOBILIZATION AND ALLOCATION

This chapter considers two related questions – how should funds be raised to support the work of the Centers, and how should those funds be allocated among uses.1 These are important questions because the CGIAR and Centers are experiencing a quiet crisis of funding and priorities. Over the past decade funding of the Centers, in constant dollars, has been relatively flat. In addition, funding from key sectors has declined substantially. For example, in constant dollars, unrestricted contributions from OECD donors decreased from $203.8 million in 1995 to $124.3 million in 2007, a decrease of $79.5 million or 39%. As well, the restrictions on the use of funding have multiplied, and the amount of time and effort across all Centers devoted to raising funds has reportedly increased. At the same time donors have become increasingly dissatisfied with the link between funding and priorities; and efforts to clarify and improve that linkage have not clearly made a difference.

This is the context in which the Panel considered how CGIAR funds should be raised and resources allocated. The Panel first asked what principles should guide its analysis of funding and allocation options. On this it came to much the same conclusion as the Change Management Team (Working Group on Funding Mechanisms).2 The key guidance documents include the Paris Declaration on Aid Effectiveness (2005)3 and the Principles and Good Practices of Humanitarian Donorship (2003).4 With these documents in mind the Change Management Team set out ten principles against which to judge funding options. The Panel concurs with these principles.5

14.1 How Should Funds be Raised to Support the Work of the Centers?

The Panel found the CGIAR and Centers in genteel financial decline. On the surface, in nominal dollars, the Centers appear to be doing reasonable well financially. However, examined more carefully, it is apparent that their financial resources, in terms of real purchasing power, have been in secular decline. While food prices were also in long-term decline, under-investment in the CGIAR and Centers may not have seemed a great problem to development agencies. However the food and commodities price crisis of 2007-2008 has changed that. Two decades of complacency about food supply have been rudely interrupted.

The stagnation of real resources available to the Centers has shown itself in various ways. Investment in plant and equipment essential to new research technologies has been less than it should have been. Germplasm collections were deteriorating unseen until the World Bank led a one-time intensive effort to upgrade facilities. Several Centers had
financial problems that periodically erupted in full-blown cash-flow crises. Other Centers did not grow in terms of the number of scientists deployed. To the credit of the Centers there are indications that they increased their research productivity per scientist significantly during this period, despite the relative paucity of resources available to them.

In this situation the Panel concluded that it is urgent that the CGIAR find a way to mobilize greater resources in support of the Centers and, in particular, to mobilize more unrestricted funds to provide the Centers with reasonable stability and flexibility. The Panel also concluded that meeting this challenge requires new instruments of fundraising. It seems unlikely that simply more of the same types of fundraising activities by individual Centers will be effective. The CGIAR needs a better instrument for mobilizing funding that will result in an increase in the scale of funds without triggering large additional transactions costs. One of the keys to achieving that major increment of funding, because it will be attractive to donors, is to make sure that the funding instrument enables strategic rather than piecemeal allocations.

At present all funding is essentially direct from individual donors to individual Centers. A portion of Centers’ incomes comes through donor decisions to purposively allocate funds among Centers; and another portion comes from Centers making proposals in competition for grants. This mixed system has advantages and disadvantages. On the negative side it tends to result in increasing amounts of relatively ad hoc “restricted” funding and this does not promote strategic coherence. Nor does it promote stability of funding or flexibility in the use of funds once received. On the positive side, a mixed funding system is compatible with the founding principles of the CGIAR, including Center autonomy and donor sovereignty. It offers multiple points of funding from donors, helps keep the Centers actively engaged with those donors and apprised of their priorities. Also, funding is stabilized by diversification. Stabilization is further promoted by the largest donors, particularly the World Bank that has played a coordinating role.

There is a consensus among most Centers and most donors that a pooled Fund may be the best new instrument to achieve both more funds and a tighter fit between priorities and the uses of funds. The Panel considered three options and came to the same conclusion. (See Chapter 13, Governance) A pooled Fund is desirable although in the immediate future it is unlikely to entirely displace all of the individual funding relationships directly from donors to Centers. The closest existing analogy to such a Fund is the World Bank’s annual $50 million grant from its Development Grants Facility. The flow of monies typical of a pooled Fund would be similar to that of the World Bank funds at present. The criteria by which funds would be allocated by formula to Centers would be negotiated by the contributors to the Fund and would likely include criteria that captured both need/potential and Center performance. There would be a strong link to a results framework, a strategy and performance indicators.
14.1.1 Should There be Annual Pledges or Triennial Replenishments?

The existence of a pooled Fund would provide an opportunity for focused and systematic fund raising. The World Bank and some other major donors might take the lead in contributing to the Fund. In principle those contributions could be either annual pledges or larger and longer-term pledges (perhaps triennial). Longer-term pledges would be best because they would enable the Fund to match its incoming funds to longer-term commitments to the Centers. This would foster coherent programs of research and open the door to sustaining grants for essential public goods such as germplasm collections.

However, at present, many donors provide grants to the Centers from their bilateral aid funds, as well as their multilateral aid funds. Bilateral aid is sometimes on an annual granting cycle and some multilateral aid is as well. Longer term replenishments are often regarded with caution by donors because they can involve a lot of preparatory work and may require many meetings to conclude. Nevertheless they are possible and have advantages.

The Panel preference would be a triennial replenishment fund set against a 5 to 10 year strategy which sets out three to five strategic objectives, time and performance targeted, However, given the inability of all donors to move immediately to a triennial pledging cycle, the Panel suggests that the annual pledging sessions at the CGIAR AGM be resurrected with a focus on the new Fund, and that donors be encouraged to make longer-term commitments and pledges when possible until the feasibility of a replenishment model can be thoroughly investigated,

14.1.2 Recommendations on Resource Mobilization

In regard to the mobilization of resources to support the research Centers, the conclusions and recommendations of the Panel are as follows:

(Recommendation 1)
CGIAR should institute a pooled Fund, either as a freestanding financial instrument or as a Trust Fund of the World Bank. The Pooled Fund should have an appropriate name, for example the CGIAR Fund or, as the Third System Review suggested, the International Fund for Agricultural Research (IFAR).

(Recommendation 2)
The Fund should allocate its monies by formula among Programs and Centers according to agreed criteria. These criteria should include the need/potential and results-based performance.
(Recommendation 3)
The Fund should be a voluntary financial instrument, in accordance with the CGIAR principle of donor sovereignty. That is, donors may contribute to the Pooled Fund but may also continue to make grants directly to Centers or directly to Programs, as they wish. However, in the spirit of the Paris Declaration, donors would be encouraged to pass the majority of their support aiming for the Paris 66% target to the Centers through the pooled CGIAR Fund.

(Recommendation 4)
Once allocated, the portion of monies from the Fund that go directly to Centers (rather than through programs) should be unrestricted – that is the uses to which they can be put by the receiving Centers should be unrestricted; although that discretion would be tempered with the knowledge that each Center’s performance, including the degree to which it achieved strategic priorities and derivative outcome targets, would have strong weight in the next round of funds allocation.

14.2 How Should Funds be Allocated Among Uses?

Every review of the CGIAR in the past decade has recommended stronger central coordination of funding and a tighter link between priorities, performance and the allocation of funds. The Panel considered how that might be achieved, first by reviewing the resource allocation practices of some major donors and then by considering options for improving the CGIAR approach. In particular, the Panel was interested in how a new Fund might open new possibilities for strategic allocation of monies to high-priority uses. The Panel considered three approaches that have been put forward:

1. The performance-based resource allocation approach pioneered by the World Bank
2. The gap-filling (matrix) system recommended by the Ad Hoc Committee on Funding Priorities (2007)

14.2.1 The World Bank’s Approaches to CGIAR Resource Allocation

The World Bank has been the one of the largest donors to the CGIAR and Centers. It has also played a coordination role that includes the management of the Multi-Donor Trust Fund, and, in the opinion of the Panel, has managed its own allocation of funds in the interest of the CGIAR System as a whole. However, at different times the Bank has taken three different approaches to allocating its grant to the CGIAR and the Centers:

1. Filling gaps in funding (1972-1993), sometimes called “balancing” and sometimes “donor of last resort.”
2. Matching the funds contributed by other donors in an effort to improve the “market” for funding (1993-2004).
3. Strategic allocation of funds by formula, based on explicit criteria that include Centers’ needs, potentials and performance.

### 14.2.2 Gap Filling by the World Bank (1972-1993)

From 1972 to 1993 the CGIAR Secretariat allocated World Bank funds to Centers to fill unfunded gaps in their work programs – that is, to “balance” the contributions of other donors. It acted as a “donor of last resort.” The Bank covered shortfalls up to a limit of 25% of the Center’s budget. The budget had first to be approved by the Technical Advisory Committee and, in a cursory way, by the Consultative Group. Moreover, USAID followed a similar procedure. The advocates of this approach believed that it had several advantages. First, it enabled the World Bank to fund certain Centers, or parts of certain Centers work plans, that, for one reason or another, had not attracted sufficient funding in a particular year to be fully implemented. If the unfunded components were strategic, then this “balancing” of funding could play a useful role. As well, the approach tended to stabilize funding across Centers. If certain Centers were unsuccessful in raising funds, in a particular year, then the World Bank could fill the gap.

However critics said that the approach could not be called strategic when, in fact, it funded whatever was left over. The gaps were probably not high priority areas since they were the remnant after some donors had directed their funds to particular Centers and particular uses, and after the Centers had allocated their unrestricted funding to particular uses.

### 14.2.3 Matching Funds (1993-2004)

In October 1993 the CGIAR Finance Committee recommended that the World Bank move towards a “donor of first resort” role. This phrase is not an entirely accurate description of the approach. In fact the Bank followed the lead of other donors in allocating its funds, which did not make it “first” in any real sense. The Bank topped up (“matched”) other donors’ contributions by a set percentage. The Bank did this partly to provide incentives for Centers to raise funds (which would be multiplied by the matching funds from the Bank), and partly to encourage a quasi-market where donors’ priorities for funding would guide the Centers’ priorities for research. However, the “matching funds” approach implicitly assumed that other donors knew better than the Bank which areas of research should be funded in order to alleviate poverty best. This is a dubious assumption since the national donors tend on the whole to have greater, not lesser, constraints than the World Bank in setting their funding priorities purely in terms on poverty reduction.
Allocations during this period became complex due to the various methods used for different parts of the allocation in the same year. Over the ten years, 1993 to 2003, the World Bank tried a series of combinations of program funding, competitive grants, and contingency (reserve) funding. The main change in the traditional approach to allocation was to move away from filling funding gaps in the least-demanded areas of Centers’ work and towards the opposite emphasis – that is, boosting funding in areas that other donors were signaling as high priorities.

The Bank has normally disbursed its funding to CGIAR Centers in two annual tranches. The first tranche was simple to calculate because it was allocated to Centers in proportion to their size. The second tranche was first allocated on a matching basis (1993-2003) and later on the basis of need, potential and performance (2004-2008).

The funds allocated by the Bank increased over the decade 1993-2003. In 1994 the Bank made a grant of $40 million. One half was allocated to Centers in proportion to their approved budgets (amounting to about 9% of budgets on average). The other half was allocated to fill gaps. Later in the year, as part of a “stabilization program,” the World Bank increased its funding by $10 million on the basis of an offer to match $20 million in new and redirected contributions from other donors. This level of matching was continued in 1995. In 1996 the World Bank increased its “regular” grant to $45 million and, again, disbursed its grant in two tranches – the first tranche was a percentage of other funding received by the Centers (9%) and the second tranche was allocated to fill gaps/cushion shocks. In 1998 the second (gap-filling) tranche included crisis funding and special projects. In 1999 the World Bank followed the same two-tranche procedure and added the concept of specific grants to system-wide programs as part of the second tranche.

Also in 1999 the World Bank “matching” added 11.5% to other donors’ funding of Centers. In 2000 the percentage was 12%. In 2002 the matching percentage was 10 percent and the World Bank allocated a substantial portion of its contribution to offsetting a major (50 percent) decline in funding by Japan.

In 2003 the World Bank Operations Evaluation Department recommend that the Bank “abandon the current matching grant model.” The 2003 fiscal year was a transition year in several ways. The World Bank was dissatisfied with the matching approach but not ready to implement a new system. As a temporary measure the World Bank’s “general support” was allocated as fixed amounts determined by each Center’s place in six categories (“brackets”). The “brackets” were based on actual funds received by each Center the previous year (excluding World Bank funds and inter-Center expenditures which might involve double counting). This was also the first full year of Challenge Program funding, as well as the major funding year for a project to rehabilitate germplasm collections (Global Public Goods Assets).
### 14.2.4 World Bank Strategic Allocations (2004-2008)

The World Bank introduced a new allocation system in 2004. This new system is similar in some respects to its allocation system for its major concessionary fund (the International Development Association, IDA, concessionary fund). That is, its approach is formula-based and, to some degree, performance-based. At the same time, The Bank continued with a substantial number of sub-allocations to various aspects of the CGIAR and Centers that were not formula based. That is, it made many set-asides for specific purposes. From 2004 to 2007 the World Bank has divided its annual $50 million contribution to the CGIAR into several parts and allocated each part differently. Approximately half the funds were allocated to the Centers by formula (see the description of base support and general support below). The other half of the funds is used to pay the costs of the CGIAR Secretariat and to support particular programs and committees in the CGIAR system. (See Figure 14.2.1)

**Figure 14.2.1:** Allocation of the World Bank Grant to the CGIAR 2007

Source: CGIAR Secretariat, 2007

**Table 14.2.1: Allocation of the World Bank Contribution to the CGIAR, 2007**

<table>
<thead>
<tr>
<th>Use of Funds</th>
<th>Allocation $M</th>
<th>Allocation %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds allocated to Centers by Formula</td>
<td>26.4</td>
<td>53%</td>
</tr>
<tr>
<td>Funds allocated to Particular Programs and Committees</td>
<td>19.2</td>
<td>38%</td>
</tr>
<tr>
<td>- Challenge Programs and SWEPS</td>
<td>09.0</td>
<td>18%</td>
</tr>
<tr>
<td>- World Bank GPG Project (Update Genebanks)</td>
<td>07.8</td>
<td>16%</td>
</tr>
<tr>
<td>- Alignment/restructuring/emergency assistance</td>
<td>01.4</td>
<td>03%</td>
</tr>
<tr>
<td>- Science Council and Committees</td>
<td>01.0</td>
<td>02%</td>
</tr>
<tr>
<td>CGIAR Secretariat</td>
<td>04.4</td>
<td>09%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>50.0</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The World Bank funds that are allocated to Centers by formula are also divided into two parts:

1. “base support” that is an unrestricted grant related to the size of the Center; and
2. “general support” which is allocated according to certain factors that include indicators of Center performance.

In 2007 about equal amounts were allocated as “base support” and “general support.” Consequently about one quarter of the World Bank funds (half of a half) is linked directly to the performance of each Center.

The formula-based allocations to Centers are currently made as follows: in 2007 each Center received a “base support” grant depending on its size (four size categories). In addition, each Center received a performance-linked grant of “general support” that was determined by its scores on 16 performance criteria. A quarter of the criteria was explicitly related to results (achievement of outputs targets, most significant outcomes and the quality of impacts monitoring, as assessed by the Science Council) and received 35% weight. The other criteria (65% weight) were in three groups: (1) quality and relevance of current research; (2) institutional health; and (3) financial health. In 2007 for the first time a small weight was given to the number of “focus areas” identified in the stakeholder perception survey. The criterion with the largest weight is “solvency” (15 percent in 2006 and 12 percent in 2007).

On the basis of their performance scores, the Centers were assigned to three groups: satisfactory, superior or outstanding. In addition a distinction was made between large Centers (10 Centers) and small Centers (5 Centers). Satisfactory large Centers received $0.6 million, superior ones received $0.9 million and those that were outstanding received $1.5 million in performance-based funding. The parallel figures for small Centers were: satisfactory $0.2 million, superior $0.6 million and outstanding $0.95 million.

It is evident that the “performance incentive” is stronger for small Centers than for large Centers. For instance in 2007 if a small Center was only “satisfactory” it received 21 percent of the performance-based funding of an “outstanding” small Center. In contrast a large Center experienced a much more modest penalty for being only “satisfactory”. It received, in fact, 40 percent of the allocation of an outstanding Center. Consequently the percentage of the World Bank formula-based allocation that each Center derived from the performance-based component, rather than the size-based component, varied considerably in 2007 from 63% (ICRISAT) to 25 percent (WorldFish and IWMI).

There are no restrictions on how the Centers use the World Bank funds that are allocated by formula (whether size-based formula or performance-based formula).
In 2008 the formula has been changed. It was found that categorizing the centers as “small” or “large” created problems for the Centers close to the boundary of the two categories, as well as the problem of small and large Centers facing different incentives as discussed above. Therefore the categorization of Centers by size has been discontinued. The categorization of performance as “satisfactory, superior or outstanding,” however, has been continued with the result that anomalies among Centers close to the category boundaries persist. (See Section 12.3 Performance Measurement and Management for a more detailed discussion of the Center performance criteria.)

The World Bank also operated a Multi-Donor Trust Fund (MDTF) for the CGIAR. It was established in 2005.\textsuperscript{28} It is a Fund that donors may use, at their discretion, to channel funds to the CGIAR and the Centers. Table 14.2.2 shows the pattern of contributions to the MDTF during the past three years. In 2007 approximately $100 million (somewhat less than one quarter of the total contributions received by the CGIAR and the Centers in that year) was channeled through the MDTF. The MDTF has no affect on allocation strategy at present. It is purely an administrative convenience for donors who continue, separately and individually, to decide how their grants will be allocated.

**Table 14.2.2: Disbursement: CGIAR Multi-Donor Trust Fund, 2005 to 2007**

<table>
<thead>
<tr>
<th>CGIAR Member</th>
<th>Fiscal Year ($millions)</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td></td>
<td>$2.2</td>
<td>$2.8</td>
<td>$1.9</td>
<td>$6.90</td>
<td>2.4%</td>
</tr>
<tr>
<td>Belgium</td>
<td></td>
<td>$6.5</td>
<td>$6.5</td>
<td>$13.00</td>
<td></td>
<td>4.5%</td>
</tr>
<tr>
<td>Canada\textsuperscript{29}</td>
<td></td>
<td>$11.0</td>
<td>$16.3</td>
<td>$16.5</td>
<td>$43.80</td>
<td>15.2%</td>
</tr>
<tr>
<td>China</td>
<td></td>
<td>$0.8</td>
<td>$0.8</td>
<td>$1.2</td>
<td>$2.80</td>
<td>1.0%</td>
</tr>
<tr>
<td>European Commission</td>
<td></td>
<td>$27.1</td>
<td></td>
<td></td>
<td>$27.10</td>
<td>9.4%</td>
</tr>
<tr>
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<td></td>
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<td>$1.8</td>
<td>$2.1</td>
<td>$5.50</td>
<td>1.9%</td>
</tr>
<tr>
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<td>$1.9</td>
<td>$2.2</td>
<td>$5.90</td>
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<td>$10.5</td>
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<tr>
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<td>0.1%</td>
</tr>
<tr>
<td>Turkey</td>
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<td></td>
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<td>0.2%</td>
</tr>
<tr>
<td>USA\textsuperscript{30}</td>
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<td>$45.9</td>
<td>$48.3</td>
<td>$56.8</td>
<td>$151.00</td>
<td>52.5%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$109.3</strong></td>
<td><strong>$80.19</strong></td>
<td><strong>$98.4</strong></td>
<td><strong>$287.89</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>


The CGIAR Secretariat prepares Trust Fund Administration Agreements annually with each Center and each donor wishing to use the Fund. The CGIAR Director signs on behalf of the Bank. For its services\textsuperscript{31} the World Bank charges an administrative fee of 0.175% of the total sum.

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Chapter 14 Resource Mobilization and Allocation
Each Agreement between the World Bank and a donor notes those Center or Centers to which funds are to be directed and the conditions on the uses of the funds. In some instances a donor may require the World Bank (through the CGIAR Secretariat) to enter into specific agreements with Centers before disbursement of funds. However the Bank does not audit compliance by the Centers with the conditions of Agreements. This has been a point of discussion. In 2006, for example, the European Commission asked the Bank to provide assurance that the uses of funds by the Centers, channeled through the Multi-Donor Trust Fund, were as agreed. These discussions did not come to fruition and the issue of who should provide assurance of compliance is unresolved. This question of assurance is related to wider issues of Center accountability for funds. (See Section 15.1)

The Fund is an important convenience to donors in two ways. It reduces transactions costs and simplifies accounting, avoiding the need for multiple agreements and separate transactions between the donor and Centers. The Fund also provides a point of entry for contributions that may be easier for the donor to make to a multilateral institution rather than directly to a research center because of policy or program constraints internal to the donor.

14.2.5 A Link with System Priorities?

The AGM 2005 endorsed a set of research priorities 2005-2015 proposed by the Science Council. There are five priority areas and twenty priorities overall. They are described in Section 12.1 “Priority Setting.” The priority statements establish a boundary for what the CGIAR wishes to fund and what not, although the boundary is quite encompassing because the priorities are broad statements of capabilities of the Centers.

Within the boundary of these broad “priorities”, the unfinished task remains to allocate resources to particular Centers and work programs. The priorities are little help in this because they are not ranked. There is no process yet in place to determine the amount of resources the CGIAR wishes to allocate to one priority area or another. There are various ways in which this challenge can be approached. The relative weight to be given to each priority in allocating resources could be stated or, alternatively, a process could be instituted to judge each Center’s annual performance in terms of the priorities as a whole. The latter approach would require the development of a performance questionnaire similar in concept to that used by the World Bank (IDA), and other multilateral institutions, to allocate concessionary resources to countries.

In the opinion of the Panel, priorities are not set until they determine resource allocation.
14.2.6 Allocation Systems of Other Funds

The Panel also looked at examples of the resource allocation systems of other organizations and funds. It found that there is an important distinction to be made between one-stage and two-stage allocation systems. The first is essentially a financial instrument and administration is relatively inexpensive. The second requires a large staff.

Other international organizations and funds, including The World Bank (IDA), the Global Environment Fund (GEF) and the International Fund for Agricultural Development (IFAD) operate resource allocation frameworks that have a strong performance-based component. However one important point to note in regard to the resource allocation systems of the International Financial Institutions (like IFAD and GEF) are that they are two-stage systems.

In the first stage allocations are made to Centers (however “Centers” are defined in a particular case – sometimes regions, sometimes countries and sometimes organizations). However, these allocations are indicative, not entitlements. In the second stage each Center has to propose eligible projects to take up its allocation. This means that the Fund has to maintain a large staff to identify and assess project proposals. In contrast, in a one-stage system such as the one the Panel recommends for CGIAR, the allocation is made and paid to the Center or Program in one or two tranches and that is the end of it.

14.3 Current Reform Proposals

The CGIAR does not currently have an approach to funding and resource allocation that is acceptable to all, and that reflects best practice in resource allocation methodology across multilateral development institutions. However several reforms are proposed or are being implemented. These include:

- operationalizing the System priorities as a guide to resource allocation (in medium-term plans, EPMRs and the Ad Hoc Committee’s proposal for filling gaps in the Centers/priorities matrix of supply and demand for funds),
- changing the Multi-Donor Trust Fund to improve its usefulness as a channel for funding,
- using the IFAD grants program as a channel for grants from CGIAR donors to Centers,
- re-instituting an Ad Hoc Finance Committee of the ExCo, and
- relating resource allocation better to System Priorities.

The Change Management Process is also considering different approaches to specifying strategic objectives, priorities and allocating resources against those.
14.3.1 The Proposal of the Ad Hoc Committee on Financing System Priorities (2007)

In December 2005 ExCo established an Ad Hoc Committee to investigate ways to fund the CGIAR system priorities that had been articulated by the Science Council. The Ad Hoc Committee reported to ExCo in October 2007 and at AGM07.\(^{38}\) The Committee stated seven principles that should guide resource allocation. Together they are a demanding agenda. There are some general criteria – for example, transparency, low transaction costs and information sharing. There are three mentions of incentives: incentives for donors to fund system priorities and to take a long-term perspective; incentives for Centers to increase collaboration; and incentives for donors to harmonize and to smooth funding. Two constraints are mentioned that derive from the original principles of the CGIAR. These are that donors should be autonomous in deciding what to fund and the Centers should be autonomous receivers of funds.\(^{39}\)

The Committee explored various ways in which donors could fund system priorities. It emphasized the importance of having multiple “entry points” for contributions. It proposed a four-step allocation process. This process has some similarities with the traditional CGIAR system (1972-1993) that relied on one or more major donors filling gaps in funding of the Centers. However several innovations were suggested. First, the funding “gaps” would not be defined by Centers alone but by a matrix of Centers and System Priorities. Willing donors would be asked to fund cells in the matrix that were under-funded (that is, that receive less first-round funding than they need to complete their proposed work-plans).

Second, donors would be asked to “declare with a degree of certainty”\(^{40}\) what they will fund. The Ad Hoc Committee noted that if the donors were forthcoming with firm funding commitments, and if those commitments were made at the same time and therefore could be allocated in a single annual exercise, this would constitute a “virtual” pooling of resources. The Committee has doubts that donors, whose behavior is determined in a wider framework, are likely to change their behaviour to this extent any time soon. An actual (not “virtual”) pooling of some resources might be less demanding of changes in donor behavior since donors could contribute to the pool at any time during the year that suited them. Some other global programs do have unified funds and most have a longer-than-annual replenishment cycle with variable payment schedules for contributions.

The Ad Hoc Committee also recommended that donors achieve a 50/50 ratio of restricted to unrestricted funding. Presumably this would be voluntary and some donors might or might not comply. For donors who contract with Centers for specific projects throughout the year there may be no obvious mechanism for implementing a 50/50 split even if they were sympathetic to the idea. Would they be required to contribute an equal amount to
unrestricted uses each time they funded a targeted grant or contract? That does not seem realistic. On the other hand, full-cost “billing” of the work associated with targeted grants and contracts might fix much of the problem.

Third, the gap filling would not be automatic. The donors-of-last-resort would fund only those gaps that they think worth funding. This selective approach to gap filling would only partly ameliorate the stigma that traditionally accompanied the idea that a donor-of-last-resort funds the least valuable activities that no one else is interested in funding. In fact the idea of selectivity is not entirely new. In practice the World Bank, in its gap-filling phase (1972 to 1993), did not fill gaps indiscriminately, however it was selective. A lack of selectivity was demonstrated not in gap filling but more so in the flat-percentage matching of other donors’ contributions in the later period (1993-2004).

The Panel observed that the Ad Hoc Committee’s proposal has some limitations. For example, it seems to anticipate that the system would evolve into a “legal entity with centralized allocation” but it is not clear what would provide the impetus for this, assuming it is the best end state. Second, the “gap filling” paradigm may be somewhat dated. It tends to stabilize funding to the Centers, especially to those Centers that are relatively unsuccessful in fund raising in a particular year. However it is only weakly strategic, if at all, and it does not provide incentives for performance (in fact, it is likely to have the opposite effect). In recent years the World Bank has moved away from gap filling in favor of a strategic allocation system for its CGIAR grant that is rules-based and that gives weight to Center needs, potential and performance. Incentives rather than stability appear to be in the forefront. Since this is the direction in which all multilateral development banks and many multilateral institutions (IFAD, for example) have been moving since about 2000, for the allocation of their major concessionary funds, it seems probable that any harmonized allocation system for unrestricted funds that might be adopted by the CGIAR would need to be rules-based (allocation by formula) and the formula would need to have a performance-based component.

14.3.2 Proposal of the Working Group on Funding Mechanisms

The Working Group on Funding Mechanisms proposes the establishment of a new Fund while keeping in place the existing channels of funding directly from donors to Centers. It described three models of Fund operations: (1) a Unified Program Model which would comprise entirely restricted funding “windows”; (2) a Priority Alignment Model which would be a combination of the matrix model proposed by the earlier Ad Hoc Committee on Funding Priorities (above) with an “unrestricted” window and a “projects” window; and (3) an Integrated Program Model, where all funds would be allocated to “windows”, mostly program windows (restricted funding) but also an unrestricted grants window for core funding of Centers.
At the same time another Working Group (on governance) has advocated quite a different model.

### 14.4 Conclusions on the Allocation of Funds

There appears to be an emerging consensus on how monies would be allocated from the new Fund. The common aim is to make allocations as strategic as possible, while providing recipients with as much flexibility in the use of funds as possible.

The Panel therefore recommends the following approach to allocations:

**Recommendation 1:**
Allocation of monies from the Fund to programs or to Centers should be determined by a Resource Allocation Framework (RAF) informed by an overarching strategy and results framework. The RAF would comprise a formula based on agreed criteria and weights.

**Recommendation 2:**
The proportions of funding allocated through various “windows” of the Fund would be decided by the Fund Council (See Chapter 13). However the Panel would encourage the Council to make allocations as stable and long-term as possible, as performance-based as possible, and as explicitly linked with indicators for the achievement of the strategic objectives.

**Recommendation 3:**
The Panel recommends that the Council consider various funding “windows” as described in Chapter 13 (Governance).
Notes

1. The two relevant questions in the Panel’s Terms of Reference are: (1) Is the current financing structure for the system appropriate? (2) Is the CGIAR aligning priorities and funding well? To be more specific this Chapter considers the following questions: Should the CGIAR institute a Pooled Fund, either as a freestanding organization or as a World Bank Trust Fund? Should funds from the Fund be allocated by formula among Centers according to agreed criteria, and if so should the criteria include the performance of each Center? Should the Fund be an exclusive entry point for CGIAR funding or a voluntary financial instrument, in accordance with the CGIAR principle of donor sovereignty? Should funds, once allocated from the Pool, be unrestricted? Should the Fund rely on annual pledges or a multi-year replenishment system?


5. (1) The CGIAR System will work to establish and maintain a dynamic, flexible and viable financing system to meet the changing needs of international agricultural research. (2) Members will establish and maintain an effective financing system to enable the organization to meet its mandate, mission and strategic objectives. (3) In keeping with the Paris Declaration on Aid Effectiveness, Members will harmonize funding decisions, and work together to ensure that they are transparent, coherent and strategic. (4) Funding to the CGIAR will be based on performance, oversight, accountability, efficiency, results and impact. (5) The CGIAR will develop and maintain a simple, efficient funding mechanism to ensure appropriate support to priority agricultural research areas. (6) Investors in the CGIAR will strive to provide predictable, multi-year unrestricted funding to the CGIAR in order to advance work towards long-term agricultural research objectives. (7) Investors in the CGIAR will provide for full direct and indirect cost recovery on restricted funding initiatives, in accordance with audited rates computed by individual CGIAR Centers. (8) The CGIAR Centers will work collaboratively in order to harmonize business practices, lower transaction costs, streamline administrative activities and improve efficiency of financial management. (9) Effective and regular oversight of and reporting on financial resources and management of Centers, including any funding problems that may arise, will be provided to the CGIAR System. (10) The CGIAR will develop and implement a consolidated approach to fundraising, to help ensure ongoing, stable and appropriate levels of financial support from current and future investors.

6. See Section __ and Appendix __ for a description of the pattern of funding to the CGIAR and the Centers over time.

7. Resource Mobilization Option 1: Full Market Approach: Donors could make all grants directly to Centers according to their individual priorities (whether the grant is made directly or through the Multi-Donor Trust Fund, with donor instructions, makes no difference). In this scenario, there would be no balancing of the Centers’ revenues, or gap filling or matching. Each donor would contribute to those Centers that it perceived were offering the best value for money. Centers would compete for funds without the safety net presently provided by the World Bank and other major donors. All funds would flow directly to the Centers and they could fund central governance and shared services, with levies, as they saw fit. Centers would compete in the market place of development donors and the competition would decide the amounts of funding each Center would receive. One advantage of this option is that it would provide a strong incentive for Centers to understand the priorities of donors and to be active in maintaining partnerships and donor
relationships. The link between the research activities of the Centers and anti-poverty goals would thereby be strengthened. Weak performance would lead to less funding in the next round and perhaps exit by low-performing Center(s). There are multiple disadvantages of this option. One is that funding would be less predictable (and therefore longer research projects might be disadvantaged relative to shorter projects). However this is yet to be established. Diversification is promoted by this option and nothing in it precludes donors funding longer-term projects. Another possible weakness of the approach is the temptation for the Centers’ executives and senior scientists to spend a disproportionate amount of time fund raising. Finally, competition among Centers has both good and bad aspects. On the negative side it may make coordinated common action more difficult. Resource Mobilization Option 2. Mixed Market Approach. The status quo is a “mixed market” – that is, the Centers compete for specific grant funding and the unrestricted funding goes directly to Centers from donors. Some of the unrestricted funding is allocated competitively and strategically, and some is not. For example, the World Bank’s grant has traditionally been allocated partly on a non-competitive basis to fill gaps and to provide a measure of financial stabilization when particular Centers have funding problems. The existing CGIAR funding and allocation system is partly market-based and partly based on a non-market mechanism. Resource Mobilization Option 3. A Mixed Market + Pooled Fund. A third option is a “mixed market,” with all the existing entry points for grants to the CGIAR and Centers, plus a unified fund (as part of the Multi-Donor Trust Fund). This Pooled Fund might, as the Third System Review suggested, be called the International Fund for Agricultural Research (IFAR). It would be a voluntary fund to which donors could contribute if they wished. The pooled funds would be allocated among Centers according to agreed criteria, such as “potential to contribute” and “demonstrated performance.” After allocation to a Center the funds would be unrestricted, however the Center’s strategic use of funds would be a factor taken into consideration by the CGIAR in the next round of resource allocation. A Unified Fund could rely on annual pledges from donors or it can operate a multi-year replenishment system.

For example the Third System-Wide Review said…; the Change Management exercise in 2001-2002 said …; and the World Bank evaluation in 2003 said …


Within a given Center funds were, of course, fungible. Therefore it was the World Bank’s choice of allocations across Centers that tended to be strategic.

In addition the CGIAR Secretariat operated a Stabilization Fund from 1984 to 1991.

The Finance Committee was meeting for the first time. It was composed of nine donor representatives and chaired by the Director of the Agriculture and Rural Development Department of the World Bank.

Some donors are constrained by political and domestic business interests.


In fact only $18 million was allocated to fill gaps because the Finance Committee held back $2 million as a “safety net” against adverse changes in the funding picture later in the year.


Crisis funding for ICRISAT ($3.5 million), ILRI ($2.0 million) and ICARDA ($1.6 million).
$2.5 million was allocated to the Central Asian Caucasus Program and $2.5 million was allocated to the Third System Review.


In 2003 the World Bank allocated $24 million to general support, $7 million to the Challenge Programs, $17 million for the rehabilitation of Global Public Goods assets, $1.7 million in system-wide programs and $1.4 million in special allocations (CGIAR Financial Report, 2003, p.15).

Two groups of indicators were used (1) Indicators of results, including “achievement of acceptable output targets”, “SC ratings of Center reports on research outcomes”, “SC/SPIA rating of overall institutional impact assessment”, and “SC/SPIA rating of two Center impact studies”; (2) Indicators of potential to perform, including “quality and relevance of current research”, “institutional health” and “financial health”.

One Center whose budget in 2006 was above $40 million received a grant of $1.35 million. Three Centers whose budgets were above $30 million and below $40 million received $1.15 million each. Six Centers whose budgets were above $20 million but below $30 million received $0.9 million each. Five Centers whose budgets were below $20 million received $0.55 million each. Specifically, above $40M (IITA); $30M-$40M CIAT, CIMMYT, IFPRI; $20M-$30M Bioversity, ICARDA, ICRISAT, ILRI, IRRI, World Agroforestry; Below $20M Africa Rice, CIFOR, CIP, IWMI, and WorldFish.

Quality and relevance of current research (peer-reviewed publications per scientist other than ISI; peer-reviewed publications per scientist in journals listed in the ISI; and the % of publications co-authored with developing country partners); institutional health (governance score, board statement, culture of learning and change, and diversity); and financial health (solvency/reserves in days of expenditures, efficiency of operations [indirect cost ratio], and cash management on restricted operations).

The reduction in weight of the weight of “liquidity in days of expenditure” from 10% in 2006 to 0% in 2007, and the similar reduction of “solvency/reserves in days of expenditures” from 15% to 12% was decided upon in light of the 2006 reprogramming of $6 million of the World Bank contribution from performance-based support to base support in response to the non-delivery of the EC contribution to the CGIAR in 2006.

Center size was based on the 2006 funding net of World Bank funding.

If all Centers competed in one pool for their performance-based allocations then the smaller Centers could, in theory, derive the greatest incremental boost from the performance-based component, relative to their base support. However in 2007 this was not so because the larger Centers competed in a different pool from the smaller Centers.

Prior to 2005 the World Bank managed a number of different funds targeted to the Centers. It instituted the MDTF partly to standardize the Trust Fund Administration Agreements by which the it manages funds contributed by other donors to the Bank for disbursement to the CGIAR and the Centers. The CGIAR Secretariat obtained approval for an Initiating Brief for the Trust Fund (IBTF) that effectively established a global multi-global trust fund. Approval of a new standardized administrative agreement (MDTFAA) was obtained on September 1, 2005. (“Report on an Audit of the Bank’s Oversight over Bank Administered Trust Funds and the DGF Grants Used by the CGIAR”, Nov. 7, 2005, p. 2.) On September 8, 2006, the Vice-President SDNVP and Chair CGIAR reported that the new arrangement was fully implemented. “Update on the Implementation of the Management Action Plan”.

Includes Linkage Fund monies (CAD 450,000).

Includes grants for strengthening African Networks/Food Security and for Natural Resource Management.
The World Bank plays a “limited trustee” role, providing services may include receiving donor funds, managing those funds, disbursing funds, providing periodic reports and producing an externally-audited financial statement for the MDTF every three years.

Each donor may attach any terms and conditions to its funds that it wishes, and the World Bank attaches those same terms and conditions to its Agreement with the Center(s) that are to receive funds. A donor may specify that its funds are to be disbursed as unrestricted “core contributions” or that their use is to be restricted to a specific region, Center, program or project. The donor may instruct the MDTF in regard to different uses and conditions for different tranches of funds.

In addition to there being no compliance audit, there has not yet been a financial audit of the MDTF. The Bank will conduct the first audit of the Fund in 2008. It will examine the period from inception (October 2005) to December 2007.

Consequently the traditional 2006 EC contribution to the CGIAR of about 23-24 million Euros was not forthcoming. In 2007 the EC concluded an intermediate arrangement with IFAD and its CGIAR contribution in that year was approximately twice the traditional annual amount, presumably to compensate for the lack of funding in the previous year.


There is a review and approval process for Centers’ Workplans and budget proposals but it is unlikely that a one-by-one consideration of these work plans and budgets, in the absence of explicit comparisons among them, is an adequate method of deciding the optimal allocation of resources.

The World Bank has developed such a questionnaire, detailed guidelines for its use, and a procedure for applying it annually to the allocation of IDA concessionary funds.


Ibid, Box 1, p.7.

Ibid, p.16

Ibid, p.18

Since 2000, the Asian Development Bank, the African Development Bank, the Inter-American Development Bank, the Caribbean Development Bank, the GEF and IFAD have all adopted formula-based resource allocation systems with a performance component with a weight, on average, of about 60%. This is a system that the World Bank (IDA) pioneered in the 1990s.
CHAPTER 15
FINANCIAL MANAGEMENT

The Review Panel has examined the financial management of the CGIAR and its affiliated Centers over the period 2002 to 2007. The Terms of Reference of the Panel contain several questions about financial management, with a focus on funding (in particular the implication of an increasing proportion of “restricted funding”). Questions that the Panel was explicitly asked to answer were:

1. Is the current financing structure for the System appropriate?
2. Is the CGIAR aligning priorities and funding well?
3. What is the role of unrestricted resources in supporting the System, including the reform program?
4. How has the decline in unrestricted funding affected the System as a whole, particularly its governance and its ability to deliver research products that contribute to the fulfillment of the CGIAR mission?
5. How effectively does the System deal with financial risks?
6. What are the costs, including transaction costs, and benefits of the governance structure?
7. Is the distribution of these costs and benefits among the three pillars appropriate to enhance the implementation of the mission of the CGIAR?

In addition, some related questions were set out in the Inception Report of the Panel that was presented to the CGIAR AGM 2007 and accepted in principle. These were:

1. What are the CGIAR costs in total and by activity?
2. What are the “core activity” and “overhead” costs of the CGIAR?
3. How do costs vary by Center? What are the driving factors? Are reforms needed?
4. What are the costs of the administrative superstructure?
5. Do the Centers manage their finances well?
6. Are internal and external audit adequate?
7. Do the Centers keep sufficient reserves?
8. What is the appropriate role of the System Office in financial management and what has its performance been?
9. What funds do the CGIAR, its Programs and its Centers receive and what are the trends?
10. What are the funding mechanisms by which donors channel their support to CGIAR and System entities? Does new thinking in public finance offer other options for modes of funding?
11. To what extent do issues of financing agricultural development, including agricultural research, figure within CGIAR’s work agenda?
12. How adequate and sustainable is funding? Is there a CGIAR strategy to promote Centers’ increasing financial sustainability over time?

13. Have increases/decreases in resources over time made a significant difference? (Loss of scholarship/fellowship programs at the Centers?)

14. What are the trends in restricted and unrestricted funding over time? How are unrestricted CGIAR funds used by recipient centers? (Issues of fungibility, attribution and full costing of activities.)

15. Are resources allocated well by CGIAR’s donors, including the World Bank, according to priorities, need, potential pay-off and Center performance?

16. Should funds be pooled and allocated by the CGIAR itself? If so how should CGIAR transition to such a system?

### 15.1 Funding the CGIAR and Affiliated Centers

The CGIAR Secretariat reports on the financial results of the CGIAR System at the end of each calendar year. The financial outcome is the aggregate of the audited financial statements of the fifteen independent Centers, the System Office, and (in 2007) four Challenge Programs.

Before addressing trends and details related to financial results, it is important to understand the various categories of CGIAR revenues. First, total revenues consist of funding from donors as well as a small amount of “other” income. Secondly, donors can be members or nonmembers of the CGIAR. Thirdly, the donors can make contributions on a restricted or unrestricted basis. The matrix in Table 15.1.1 reflects the important relationships between the components of total revenue.

<table>
<thead>
<tr>
<th></th>
<th>2007 Restricted Revenue</th>
<th>2007 Unrestricted Revenue</th>
<th>2007 Total Revenue</th>
<th>% Unrestricted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Funding</td>
<td>$258</td>
<td>$179</td>
<td>$437</td>
<td></td>
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<tr>
<td>Non Member Funding</td>
<td>57</td>
<td>0</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>Total Funding</td>
<td>316</td>
<td>179</td>
<td>495</td>
<td>36.2%</td>
</tr>
<tr>
<td>Other Income</td>
<td>0</td>
<td>25</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td><strong>$316</strong></td>
<td><strong>$204</strong></td>
<td><strong>$520</strong></td>
<td><strong>39.2%</strong></td>
</tr>
</tbody>
</table>


In 2007, the Centers and the CGIAR collectively generated total revenue of $520 million. Funding from donors accounted for $495 million, or 95% of the total. “Other” income was $25 million. Other income is an unrestricted source derived from investment interest and miscellaneous items at the Center level.
Nonmember funding was roughly 12% or $57 million in 2007. To date, nonmember funding has been restricted. The relationship between member and nonmember funding is important and will be discussed in more detail later in this section. Based on total funding of $495 million, 36% or $179 million of the funding was unrestricted in 2007. Restricted funding was $316 million, or 64%.

15.1.1 Growth in Total Funding 1995-2007

From 1995 to 2007, total revenues for the CGIAR and its affiliated Centers increased from $344 to $520 million, a change of $176 million. This is a total increase of 51% for the twelve-year period. Although an overall increase of 51% may appear to be significant, it is actually a modest annual increase of only 4% on average (Compound Annual Growth Rate (CAGR)). As shown in Table 15.1.2 this is also a nominal dollar increase before adjusting for inflation.

Table 15.1.2: CGIAR and Affiliated Centers – Nominal Funding 1995 and 2007

<table>
<thead>
<tr>
<th>US$ Millions</th>
<th>Nominal 1995</th>
<th>Nominal 2007</th>
<th>Change</th>
<th>Total Increase / (Decrease)</th>
<th>12 YR CAGR</th>
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</thead>
<tbody>
<tr>
<td>Total Funding</td>
<td>$ 329</td>
<td>$ 495</td>
<td>$ 166</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Income</td>
<td>$ 15</td>
<td>$ 25</td>
<td>$ 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Revenue</td>
<td>$ 344</td>
<td>$ 520</td>
<td>$ 176</td>
<td>51%</td>
<td>4%</td>
</tr>
</tbody>
</table>


Since buying power decreases during periods of inflation, the Review Panel adjusted the funding numbers by using an inflation index. Adjusting for inflation internationally, when different centers are purchasing goods and services in different markets, is an inexact science. However, using reasonable assumptions to estimate the real buying power of Centers over time, the Panel finds that it has been relatively flat. In constant dollars (revenue in inflation adjusted dollars), funding for the CGIAR and its affiliated Centers increased by only $21 million (about 4%) from 1995 to 2007. This equates to an average annual increase of zero percent. (Table 15.1.3)

Table 15.1.3: CGIAR and Affiliated Centers – Constant Dollar Funding 1995 and 2007

<table>
<thead>
<tr>
<th>US$ Millions</th>
<th>Constant 1995</th>
<th>Constant 2007</th>
<th>Change</th>
<th>Total Increase / (Decrease)</th>
<th>12 YR CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Funding</td>
<td>$ 477</td>
<td>$ 495</td>
<td>$ 18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Income</td>
<td>$ 22</td>
<td>$ 25</td>
<td>$ 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Revenue</td>
<td>$ 499</td>
<td>$ 520</td>
<td>$ 21</td>
<td>4%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Unit: Constant dollars, base year 2007
The decline in Center funding did not occur in a vacuum. Bilateral and multilateral investments in agriculture declined from approximately 17% of Official Development Assistance (ODA) in 1982 to less than 2.9 percent in 2006. Over the two decades, 1982-2002, the global volume of assistance to agriculture (expressed in 2002 prices) decreased from US $6.2 billion to US $2.3 billion. Over the same period, multi-laterals cut ODA spending on agriculture from US $3.4 billion to US $0.5 billion (a decrease of 85%). In contrast with these cuts, the CGIAR and Centers did relatively well to hold their financial ground.

Figure 15.1.1: Declines in ODA Spending on Agriculture (Nominal)

Source: www.oecd.org/dac/stats

Finding: In constant dollar terms, funding and purchasing power has been relatively flat since 1995.

15.1.2 Shifts in Restricted and Unrestricted Funding from 1995-2007

The funding received by Centers comes in two forms – unrestricted funds that the Center may use for any purpose; and restricted funds that comprise strategic or targeted grants.

There are two types of unrestricted support:

- Unrestricted support without attribution refers to unrestricted funds to support the Center as a whole. Centers can allocate unrestricted funds to any program or cost within the research agenda based on needs and priorities of the respective Center. The World Bank’s contributions are an example of this type of funding. Major uses of
unrestricted funds include management and general expenses as well as expenditures applicable to the Board of Trustees, depreciation, finance, human resources, purchasing, supplies, building maintenance, security, general services, and housing.

- Unrestricted support with attribution refers to funds for programs or specific regions. Use of these funds within a program or region is unconstrained in terms of type of expenditure, but Centers are required to document their use of funds. Japan, France, the United Kingdom, and the EC have given this type of support. For purposes of financial reporting, this type of grant is typically reported in the table along with other restricted grants. However, given the fungibility of funds, the level of restriction in the use of these monies is generally low.

There is also a range of “restricted” funding. The “restrictions” vary from strong contractual requirements that clearly define projects and deliverables, at one extreme, to general restrictions on the area of work (work in Africa, for example, or on a particular crop) at the other extreme.

Restricted funds are defined as follows:

- Restricted support must be used in accordance with a contract between a donor(s) and the Center. The funding is designated for a specific project, subproject, or activity. Funds for each line item in the budget are specified in the contract. Any reallocation of funds within the budget generally requires the prior consent of the donor. Accountability is detailed in the contract, which often requires financial audits on a periodic (annual) or end-of-project basis. Funding is typically disbursed as the project reaches specific milestones or a percentage of completion.

In nominal dollars, restricted funding increased from $121 million in 1995 to $316 million in 2007, a total increase of $195 million, or 162%. At the same time, unrestricted funding decreased from $208 million to $179 million, a decline of $29 million, or 14%. As a percentage of total funds, the change is significant. In 1995, 63% of total funding was unrestricted. By 2007, only 36% of total funding was unrestricted.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted</td>
<td>$121</td>
<td>37%</td>
<td>$316</td>
<td>64%</td>
<td>$195</td>
<td>162%</td>
</tr>
<tr>
<td>Unrestricted</td>
<td>$208</td>
<td>63%</td>
<td>$179</td>
<td>36%</td>
<td>$(29)</td>
<td>(14%)</td>
</tr>
<tr>
<td>Total</td>
<td>$329</td>
<td>100%</td>
<td>$495</td>
<td>100%</td>
<td>$166</td>
<td>51%</td>
</tr>
</tbody>
</table>

In constant dollar terms, restricted funding increased from $175 million in 1995 to $316 million in 2007, an increase of $141 million. During the same period, unrestricted funding fell from $302 million (2007 constant dollars) to $179 million, a drop of $123 million, or 41% in real buying power. Table 15.1.5 and Figure 15.1.2 depict the decline in constant dollars.

Table 15.1.5: Levels of Restricted and Unrestricted Funding for CGIAR System as % of Total (Constant Dollars)

<table>
<thead>
<tr>
<th>US$ Millions</th>
<th>Constant 1995</th>
<th>% of Total Funding</th>
<th>Constant 2007</th>
<th>% of Total Funding</th>
<th>Change 1995-2007 in $</th>
<th>Change 1995-2007 in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Funding</td>
<td>$175</td>
<td>37%</td>
<td>$316</td>
<td>64%</td>
<td>$141</td>
<td>81%</td>
</tr>
<tr>
<td>Unrestricted Funding</td>
<td>$302</td>
<td>63%</td>
<td>$179</td>
<td>36%</td>
<td>$(123)</td>
<td>(41%)</td>
</tr>
<tr>
<td>Total Funding</td>
<td>$477</td>
<td>100%</td>
<td>$495</td>
<td>100%</td>
<td>$18</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: CGIAR Financial Reports, adjusted for inflation index, 2007 base

Figure 15.1.2: Restricted and Unrestricted Funding (Inflation-adjusted 2007 constant dollars)

As one can see from the Figure 15.1.3 a major decline in the level of unrestricted funding, as a percentage of total funding, occurred from 1995 to 2001. From 2001 to 2006, restricted funding, as a percentage of total funding, stabilized. In 2007 there seems to have been a sharp downturn in the percentage of unrestricted funds but this is a unique situation created, in part, by a doubling of EC funding in 2007. It is important to note that increases in Challenge Program funding also had an impact on the increasing levels of restricted funding. More details related to Challenge Programs are discussed in Section 15.3. (Note: the percentages in Figure 15.1.3 are the same on a nominal or a constant inflation adjusted basis.)
Independent Review of the CGIAR System

**Figure 15.1.3:** Levels of Restricted and Unrestricted Funding for CGIAR System as % of Total

![Graph showing Levels of Restricted and Unrestricted Funding for CGIAR System as % of Total](image)


The declining level of unrestricted funding presents financial challenges for the Centers. These include:

- **Need for tighter financial controls and improved understanding of total cost drivers.**
  The increase in restricted funding requires Centers to develop a thorough understanding of total, not just direct, costs by project. In situations where indirect costs are not fully recovered, budgets must allow for this by conservatively budgeting other activities for unrestricted funds. Although some Centers have adjusted to such requirements, other Centers struggle with both the need to renegotiate contracts and the need to develop a better understanding of indirect cost drivers.

- **Most restricted grants have a higher administrative burden than unrestricted funds.**
  Restricted grants carry more burdensome administrative requirements including audits, financial reports, and project progress reports. Each donor has unique reporting requirements, so it is difficult to standardize or gain efficiencies in the preparation of such reports.

- **Gaps in revenues resulting from project delays.**
  Restricted funds are recognized as revenue only as the costs of the projects are incurred. As a result, project delays translate directly into reduced revenues for the period and have been cited in financial reports as a major reason for funding gaps in the current period. During delays of restricted projects, certain costs, such as salaries, continue to be incurred and must be covered by some other source of funding. In comparison, unrestricted funding is recorded as revenue during the period it is received.

- **Small restricted grants may create a bias toward a project-by-project rather than a strategic approach to research.**
The number of restricted (multi-year) grants of less than $100k has increased System-wide since 1999. For example, IITA had a total of 27 restricted grants pledged that were under $100K in 1999. By 2007, the number increased to 99 or 40% of all grants. Small, individual grants of this size that are allocated on a project-by-project basis create the potential for a more fragmented rather than strategic approach to research.

- **Small grants add more administrative costs per dollar in revenue.** Because many of the administrative and reporting costs per grant are fixed, the proliferation of grants that are less than $100k adds more costs as a percentage of funding than larger grants. In some cases, the costs of such grants may outweigh the potential benefits of the science.

- **Subsidization of restricted projects with unrestricted funds.** Restricted donors are not always paying the full share of overhead or indirect costs on their projects. In such cases, unrestricted contributions must subsidize restricted projects to cover overhead and indirect costs. This creates a situation where restricted donors are “free riding” on unrestricted donors.

On a more positive note, there are some advantages to restricted funding. For example, restricted funding can be seen as strategic and targeted from the donor’s point of view. This category also allows Centers to diversify funding sources to a greater extent than otherwise available on an unrestricted basis. Because of its clear product deliverables and deadlines, restricted funding may also promote program management efficiencies and improve productivity.

**Finding:** Although there are donor advantages to restricted funding, the overall combined effect of the challenges of unrestricted funding is a reduced level of financial flexibility for the Centers. This translates into increased financial instability, variability in funding, and risk for the Centers overall. The ability and skills to adapt to these new financial challenges vary across Centers. Those Centers not currently in strong financial positions will find it increasingly difficult to maintain financial stability in the current funding environment.

### 15.1.3 Calculations Used in Determining Levels of Unrestricted Funding

The calculation used in determining unrestricted funding levels can be adjusted slightly to provide what might be a more accurate picture of the funds that are available at the Center level. For example, “other income” is not donor funding, but is, in fact, a category of resources available to Centers without restrictions. In order to take into consideration some of the minor and not so minor adjustments that could be made in determining unrestricted funding levels, the Review Panel took the typical calculation (referred to here as Base Case) and adjusted it for the following items:
• Other Income – Other income of up to $25 million was added to the unrestricted funding base. This increased unrestricted funding levels in 2007 from 36% to 39%.

• Partner Challenge Program Funding – The CGIAR reports funding inclusive of Challenge Program funding that goes to partners outside the Centers. The Panel reduced 2007 restricted funding by $17 million to remove these funds, as they have no impact on the CGIAR affiliated Centers. This resulted in only a slight increase of 1% in unrestricted funding levels, but future amounts may be substantial if Challenge Programs continue to grow and it should be noted that Partner funding does not have a direct impact on Center restrictions.

• EC Funding in 2007 – The EC did not make a contribution to the CGIAR in 2006 and therefore, doubled its contribution in 2007 to $62.4 million instead of the usual $30+ million. This resulted in an increase in restricted funding of $62.4 million when comparing 2007 to 2006, thus distorting the 2007 ratio. The Review Panel adjusted this anomaly by reallocating $30 million of EC funding to 2006 and reducing 2007 by $30 million. The result increased unrestricted funding levels for 2007 by almost 3%.

Taken individually, the adjustments do not have a major impact on the level of unrestricted funding reported across the System. On a cumulative basis, however, the increase in unrestricted funding improved from a base of 36% to a fully adjusted case of 43%, not an insignificant amount. Figure 15.1.4 and Table 15.1.6 reflect the two scenarios.

Figure 15.1.4: Adjusted Unrestricted Funding Percent for CGIAR and Affiliated Centers

Source: Data derived from 2007 CGIAR Financial Report
Note: The sharp decline in the percentage unrestricted funding in 2007 Base Case due to a one-time adjustment of grants from the European Community.
Table 15.1.6: Recalculated Level of Unrestricted Funding

<table>
<thead>
<tr>
<th>Version #1- Base Case As Typically Reported</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Case Restricted</td>
<td>$200</td>
<td>$212</td>
<td>$243</td>
<td>$255</td>
<td>$245</td>
<td>$316</td>
</tr>
<tr>
<td>Base Case Unrestricted</td>
<td>$158</td>
<td>$170</td>
<td>$194</td>
<td>$195</td>
<td>$181</td>
<td>$179</td>
</tr>
<tr>
<td></td>
<td>$357</td>
<td>$381</td>
<td>$437</td>
<td>$450</td>
<td>$426</td>
<td>$495</td>
</tr>
<tr>
<td>Restricted %</td>
<td>56%</td>
<td>56%</td>
<td>56%</td>
<td>57%</td>
<td>58%</td>
<td>64%</td>
</tr>
<tr>
<td>Unrestricted %</td>
<td>44%</td>
<td>44%</td>
<td>44%</td>
<td>43%</td>
<td>42%</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Version #2- Unrestricted Funding adjusted for unique items</td>
<td>2002</td>
<td>2003</td>
<td>2004</td>
<td>2005</td>
<td>2006</td>
<td>2007</td>
</tr>
<tr>
<td>Restricted Funding</td>
<td>$200</td>
<td>$212</td>
<td>$243</td>
<td>$255</td>
<td>$245</td>
<td>$316</td>
</tr>
<tr>
<td>Less: Partner Challenge Programs</td>
<td>$-</td>
<td>$-</td>
<td>$(5)</td>
<td>$(10)</td>
<td>$(11)</td>
<td>$(17)</td>
</tr>
<tr>
<td>EC Adjustment</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$30</td>
<td>$(30)</td>
</tr>
<tr>
<td>Restricted w/o CP Partners</td>
<td>$200</td>
<td>$212</td>
<td>$238</td>
<td>$245</td>
<td>$264</td>
<td>$269</td>
</tr>
<tr>
<td>Unrestricted</td>
<td>$158</td>
<td>$170</td>
<td>$194</td>
<td>$195</td>
<td>$181</td>
<td>$179</td>
</tr>
<tr>
<td>Plus: Other Income</td>
<td>$14</td>
<td>$17</td>
<td>$16</td>
<td>$10</td>
<td>$22</td>
<td>$25</td>
</tr>
<tr>
<td>Total</td>
<td>$172</td>
<td>$187</td>
<td>$211</td>
<td>$205</td>
<td>$203</td>
<td>$204</td>
</tr>
<tr>
<td>Total Funding</td>
<td>$371</td>
<td>$398</td>
<td>$448</td>
<td>$450</td>
<td>$467</td>
<td>$473</td>
</tr>
<tr>
<td>Restricted</td>
<td>53.8%</td>
<td>53.1%</td>
<td>53.0%</td>
<td>54.5%</td>
<td>56.5%</td>
<td>56.9%</td>
</tr>
<tr>
<td>Unrestricted w/Other Income</td>
<td>46.2%</td>
<td>46.9%</td>
<td>47.0%</td>
<td>45.5%</td>
<td>43.5%</td>
<td>43.1%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: 2002-2007 Financial Reports for CGIAR

Finding: The calculation used in determining unrestricted/restricted funding can be manipulated quite easily to create swings in the levels of funding. For 2007, the major increase in restricted funding needs to be viewed in context as it resulted primarily from the doubling of EC funding in the current period. Partner funding for Challenge Programs has no impact on the Centers and should probably be removed from the calculation. Should “Other Income” become a major source of funds, it should be considered when attempting to capture an accurate picture of the total resources available to the Centers on an unrestricted basis.

15.1.4 The Impact of Declines in Unrestricted Funding on Financial Stability

The decline in unrestricted support has been cited as a cause of financial instability at the Center level. This suggests that financial operations are more stable during periods when unrestricted funding is high and less stable when unrestricted funding is lower. To test this proposition the Review Panel conducted a regression analysis of unrestricted funding levels and the actual surpluses or deficits incurred for each Center since 1995. The results verify that there is a correlation between unrestricted funding and surpluses/deficits.
Approximately 38% of the variability in surpluses and deficits can be explained by fluctuations in the level of unrestricted funding.

Unrestricted funding, however, does not explain most (62%) of the variability in surpluses and deficits. In fact, there have been deficits during years when unrestricted funding was at its highest levels. For example, the $60 million rescue package required in 1994/1995 was one of the largest infusions of emergency funding in CGIAR’s history, though the crisis was caused not by restricted funding but by two major donors cutting back their commitments to the Centers. In 1996, another crisis developed, requiring an additional $20 million in combined funding and cutbacks. All of this transpired during periods when unrestricted funding was at much higher levels than it is today. Consequently, a good argument can be made that the largest risks to the Centers are not from funding restrictions but from the inherent instability of donor commitments to unrestricted funding.

Nevertheless, there is no disputing the fact that restricted funding places more of a burden on the Centers. Increases in administrative and financial reporting, especially for small grants creates a very real drain on resources. However, unrestricted funding has been declining for at least thirteen years, and Centers need to recognize that although restricted levels may stabilize, they are not likely to decline. As such, Centers must make adjustments in business practices in order to accommodate for the loss of financial flexibility. For example, if there is less flexibility in the use of available funding, then Centers must monitor total costs more closely and budget conservatively. This includes direct as well as indirect costs. Allowances for any project that does not allow the Center to recover total costs (both direct and indirect) must be budgeted accordingly. More importantly, Centers need to ensure that individuals negotiating contracts have a thorough understanding of project total costs and the importance of total cost recovery. In situations where a donor is unwilling to pay for indirect costs and unrestricted funding is simply unavailable to cover such costs, the Center may need to walk away from the project.

It is important to note that some Centers are already addressing all of these issues and have even taken extreme measures, such as reducing staff and other major cutbacks.

Finding: A regression analysis shows a positive correlation between financial instability (deficits) and declines in unrestricted funding, explaining roughly 38% of the variability. This further confirms the Panel’s earlier findings that lower unrestricted funding levels create financial instability for some of the Centers. It is important to note that not all Centers incur financial instability and not all deficits are caused by lower levels of unrestricted funding.
15.1.5 Impact of Declines in Unrestricted Funding on Quality of Research

One of the functions of unrestricted funding is to enable each Center to control a significant part of its own research agenda. This seems wise. In the past year a figure of 20% of Centers’ expenditures on “off priorities” research has been mentioned as reasonable. However, this is a different point. The key question for us here is the degree of flexibility each Center should have to pursue “on-priorities” research in its own way, rather than to be closely guided by contract and grant requirements. It is impossible to answer this question definitively. However, the original intention of the founders of the CGIAR, in protecting Center autonomy, and in providing independent science advice, was clearly to give each Center a lot of discretion in formulating its research program.

It is said that unrestricted funds serve several important purposes. They cover core costs that are not eligible costs for restricted grants. They are the main source of Centers’ retained income (reserves) and the main source of funds for investments in capital facilities. Unrestricted funds cover unfunded components of restricted grants when a particular donor does not cover the full cost of research. They are the primary source of funds for research initiated by the Center itself that is not supported by donors directly, and therefore these funds enable the Centers to steer their own research program more than would otherwise be possible. Unrestricted funding allows more flexibility to innovate and to adjust to research findings that are less promising than expected in order to achieve strategic objectives. Lastly, unrestricted funds can cover the time and expense necessary to write academic papers, based on the Center’s research (restricted and unrestricted) and submit them for publication.

It seems reasonable to suppose then that unrestricted funding is correlated with the quality of the Centers’ research. From a financial perspective, there is little data that provides details related to the specific projects supported with unrestricted grants. Although previously reported (during the 1990’s) as core and non-core agenda items, this distinction in reporting no longer exists, and most unrestricted funding has far less detail attached to it than what is available on restricted grants.

Although high quality research is undoubtedly conducted with both restricted and unrestricted funding, there are concerns regarding the rapidly increasing number of very small restricted grants that are allocated on a project-by-project basis. Based on the limited financial resources and short-term nature of these projects, it is reasonable to assume that the current environment does not optimize the use of funds in the most strategic manner.
15.1.6 Trends in the Level of Restrictions

Aggregate funding data does not reveal details related to the level of restrictions on a Center-by-Center basis. An important category of contributions is the ‘unrestricted with attribution’ funding that is not fully restricted in its use but may be earmarked for major projects. Attributed funding is attractive since Centers have some flexibility and discretion in how the funds are used. In response to the Panel’s request, the fifteen Centers provided data regarding their respective attributed funding levels. In compiling the data, the Panel noted the following:

- Not all Centers have attributed funding or indicated that they have attributed funding.
- Some Centers categorize a portion of their attributed funding as unrestricted and another portion of it as restricted. This was especially the case in 1999. By 2007, Centers moved toward a policy of categorizing all attributed funding as restricted. Due to the change in reporting, comparisons between 1999 and 2007 are not easy to make as the Center may appear to have an increase in restricted funding when, in fact, it is simply a reclassification of the same funding and there are no additional restrictions placed on the Center by the donor.

For comparison purposes, the Panel selected a sample of four Centers that provided information related to “attributed” funding for both 1999 and 2007. In each case, the amount of attributed funding increased from 1999 to 2007. As a percentage (%) of total funding, however, the results were mixed. The most interesting information is related to the number of donors. In 1999, there were about twelve donors contributing on an attributed basis (relatively modest levels per donor). By 2007, attributed funding was dominated at each of the four Centers by one donor, the EC. By 2007, EC funding accounted for 74%-95% of all attributed funding. A comparison to 1999 cannot be made for EC members as details are not provided. Figure 15.1.5 reflects the change for selected Centers.
Figure 15.1.5: “Unrestricted with Attribution” Funding 1999 and 2007- Nominal US$ (000’s)

Source: Individual Center grant schedules for 1999 and 2007 as reported in audited financial reports of Center and further annotated by Center representatives

Table 15.1.7: Detailed Grant Data for Selected Centers, 1999 vs. 2007

<table>
<thead>
<tr>
<th>Center Grant Information (US$ 000’s)</th>
<th>IITA</th>
<th>CIAT</th>
<th>ICRISAT</th>
<th>ICARDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Funding</td>
<td>13,098</td>
<td>10,825</td>
<td>5,988</td>
<td>10,796</td>
</tr>
<tr>
<td>Challenge Programs</td>
<td>1,955</td>
<td>3,877</td>
<td>1,816</td>
<td>-</td>
</tr>
<tr>
<td>Unrestricted w/Attribution</td>
<td>3,436</td>
<td>3,705</td>
<td>2,809</td>
<td>3,028</td>
</tr>
<tr>
<td>Total Restricted Funding</td>
<td>16,534</td>
<td>14,528</td>
<td>8,797</td>
<td>12,198</td>
</tr>
<tr>
<td>Unrestricted Funding</td>
<td>14,208</td>
<td>13,867</td>
<td>12,204</td>
<td>8,252</td>
</tr>
<tr>
<td>Total All Funding</td>
<td>30,742</td>
<td>28,395</td>
<td>21,001</td>
<td>20,450</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Funding</td>
<td>14.1%</td>
<td>18.0%</td>
<td>3.8%</td>
<td>13.8%</td>
<td>13.4%</td>
<td>15.7%</td>
<td>4.4%</td>
<td>4.4%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Challenge Programs</td>
<td>4.3%</td>
<td>8.8%</td>
<td>0.0%</td>
<td>7.0%</td>
<td>-3.8%</td>
<td>13.4%</td>
<td>7.0%</td>
<td>7.0%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Unrestricted w/Attribution</td>
<td>-0.3%</td>
<td>9.2%</td>
<td>13.0%</td>
<td>15.7%</td>
<td>13.4%</td>
<td>6.9%</td>
<td>11.0%</td>
<td>6.9%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Total Reported Restricted Funding</td>
<td>18.1%</td>
<td>23.0%</td>
<td>51.2%</td>
<td>13.8%</td>
<td>41.9%</td>
<td>55.7%</td>
<td>59.6%</td>
<td>64.4%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Total All Funding</td>
<td>26.1%</td>
<td>20.0%</td>
<td>48.8%</td>
<td>-13.8%</td>
<td>58.1%</td>
<td>44.3%</td>
<td>40.4%</td>
<td>35.6%</td>
<td>-4.8%</td>
</tr>
</tbody>
</table>

Source: Individual Center grant schedules for 1999 and 2007 as reported in Center audited financial reports and further annotated by Center representatives

Chapter 15 Financial Management
Funding that carries both donor restrictions and burdensome reporting requirements is deemed less desirable from a Center perspective because it is less fungible and increases administrative expenses. However, it is important to note that not all funding that appears in a Center’s restricted funding schedule as reported in its audited financial statements carries either restrictions or reporting burdens initiated by the donor. A closer examination of two major donors, the EC and UK (DFID) sheds light on why it is not easy to determine whether or not reported levels of restricted funding are indicative of additional restrictions from the donor.

In 2007, the UK (DFID) donated $44.6 million to the CGIAR and its affiliated Centers. According to CGIAR financial reports, $23.3 million was unrestricted and $21.3 million was restricted (almost entirely Challenge Programs). However, from the donor perspective, DFID does not ask for special reports on any of its funding so the administrative burden does not differ between the two categories. Also, it is the CG that prioritizes the allocation of funding to the Challenge Programs. DFID simply agrees to the CGIAR’s recommendations. In a case like this, it is the CGIAR and Centers that determine largely how the funds are used, not the donor. It may make sense to categorize the funds as restricted, because they are earmarked, but it is also important to understand the source of the restriction. In this case, restrictions are not driven or mandated by the donor organization but designed, in part, by funding priorities established by the CG and its affiliated Centers.

The EC is another example of how the use of funds is largely driven by CG and Center decisions, not donors. In 2007, $62.4 million in funding was contributed by the EC, all of it on an unrestricted with attribution basis. According to donor representatives, the EC asks the Centers for suggestions regarding what to fund in the area of certain rather broad themes. The Centers use their programs or MTPs to “offer” them to the EC. Again, if some of the funding gets categorized as restricted, then it is important to know the level of restriction and whether or not the project allocation decisions are driven more by the CG than by the donor.

Although the Panel recommends that donors increase allocations of unrestricted funding in order to reduce the burdens of restricted funding, this recommendation is not valid for all funding categorized as restricted. In the case of the EC and DFID, it is the behavior of the Centers and CG that drives the use of funds, not donor initiated restrictions. As a result, the reduction in truly restricted grants requires a close examination of donors on an individual basis.

Finding: The Panel’s findings indicate that a look at funding schedules needs to take into consideration how the Center categorizes “attributed” funding, how much attributed funding is included as restricted, and also whether or not funding deemed “restricted” is by the CG and Center’s own design or directed by the donors.
15.1.7  Trends in Size, Number, and Distribution of Restricted Grants

The increase in restricted funding over the 1999 to 2007 period is well documented. An interesting trend is also the increase in the number of restricted grants, especially small grants of less than $100k. Three of the four Centers examined (IITA, CIAT, and ICRISAT) were managing more than 200 restricted grants by 2007. In the case of ICRISAT, restricted funding increased by $3.7 million between 1999 and 2007, adding 127 restricted grants with an average value of $29k. IITA also experienced a large increase and is dealing with roughly double the number of restricted grants that were managed in 1999 (127 vs. 255). CIAT, although showing the largest number of restricted grants (258) reflected an increase of 31% which could be due to the fact that CIAT’s data is 2000 rather than 1999. Figure 15.1.6 reflects details.

Figure 15.1.6:  Change in Number of Restricted Grants for Selected Centers 1999-2007

Source: 1999 and 2007 grant data received by Centers and included in audited financial reports
Note: CIAT data is 2000 as 1999 details were unavailable

A shift in the size of restricted grants appears to be a consistent trend. The restricted grant analysis shows that many of the restricted grants added since 1999 were less than $100k in total. By 2007, three of the Centers examined (CIAT, IITA, and ICRISAT) had more than 100 grants pledged at values less than $100k. In fact, by 2007, small grants of less than $100k represented 40-50% of all grants for each of the Centers examined. Assuming that most of these grants carry additional reporting burdens as well as major restrictions, the administrative costs per dollar invested in research may be excessive. Figure 15.1.7 and 15.1.8 show details.
These findings are not new. In March 2006, the Report of the Third EPMR of World Agroforestry (ICRAF) noted similar findings and also noted concerns that “smaller projects carry a heavy administrative burden which is out of proportion to the science and income they generate”\textsuperscript{55}. Specifically, the EPMR Review Panel noted that in 2005, 67 out of 162 of ICRAF’s active projects were sized at less than $50,000. While accounting for 41\% of total grants this group represented only 6\% of ICRAF’s restricted income.\textsuperscript{6} As a result of
the review, the EPMR Panel suggested that ICRAF should, in future project development, seek fewer small grants. The Independent Review Panel of the CGIAR agrees with this suggestion and also recommends that Centers develop estimates for the administrative costs associated with restricted grant management. With actual cost data, Centers could then establish minimum grant requirements in order to ensure that funding is in line with costs incurred.

Table 15.1.8: Distribution of ICRAF Restricted Funding Projects, 2005

<table>
<thead>
<tr>
<th>World Agroforestry (ICRAF)</th>
<th>2005</th>
<th>% of Grants</th>
<th>US$ Value of Grants</th>
<th>% Restricted Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Grants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under US$20,000</td>
<td>38</td>
<td>23%</td>
<td>360,206</td>
<td>2%</td>
</tr>
<tr>
<td>US$20,000-49999</td>
<td>29</td>
<td>18%</td>
<td>914,138</td>
<td>4%</td>
</tr>
<tr>
<td>US$50,000-99,999</td>
<td>30</td>
<td>19%</td>
<td>2,287,914</td>
<td>10%</td>
</tr>
<tr>
<td>US$100,000-199,999</td>
<td>28</td>
<td>17%</td>
<td>3,869,441</td>
<td>17%</td>
</tr>
<tr>
<td>US$200,000-499,999</td>
<td>26</td>
<td>16%</td>
<td>4,722,282</td>
<td>20%</td>
</tr>
<tr>
<td>Over US$500,000</td>
<td>11</td>
<td>7%</td>
<td>10,977,571</td>
<td>47%</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100%</td>
<td>23,131,552</td>
<td>100%</td>
</tr>
</tbody>
</table>


The Review Panel of this current review also evaluated grant duration, or the average length of a grant. Results related to duration were mixed with the average duration of restricted grants ranging from 2.76 to 3.1 years for the Centers reviewed. There were no clear trends indicating that duration had increased or decreased on average during the 1999 to 2007 period.

Findings: The administrative burdens associated with small restricted grants may be out of balance with the revenue and benefits that are generated. Centers need to understand their actual administrative costs on a per grant basis and establish minimum funding requirements to ensure that restricted grant resources are deployed effectively and in accordance with strategic priorities.

15.1.8 Member and Non-Member Funding

Grants from CGIAR members are the primary source of revenue for the Centers. Members consist of industrial and developing countries, foundations, and international organizations. Grants are also received from non-members.

Funding for the 2002-2007 period reflects a substantial increase in the rate and level of non-member funding. Non-member funding more than doubled from $25 million in 2002 to $57 million in 2007, representing 11% of total revenue for the CGIAR and Affiliated Centers. The average annual increase of 17.9% significantly outpaces member funding that
grew at only 5.6% for the same period. A major reason for the recent increase in non-member funding is the sizeable grant from the Bill & Melinda Gates Foundation. Non-members may not be privy to the policy and strategy discussions of the CGIAR, or accountable for their influence on the program. Otherwise there is no financial difference between member and non-member grants.

### Table 15.1.9: Member and Non-member Funding for the CGIAR System

<table>
<thead>
<tr>
<th>US $ Millions - Nominal Values</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>5YR CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Funding</td>
<td>$332.0</td>
<td>$356.0</td>
<td>$397.0</td>
<td>$413.0</td>
<td>$381.0</td>
<td>$437.0</td>
<td>5.6%</td>
</tr>
<tr>
<td>Non-member Funding</td>
<td>$25.0</td>
<td>$25.0</td>
<td>$40.0</td>
<td>$37.0</td>
<td>$45.0</td>
<td>$57.0</td>
<td>17.9%</td>
</tr>
<tr>
<td></td>
<td>$357.0</td>
<td>$381.0</td>
<td>$437.0</td>
<td>$450.0</td>
<td>$426.0</td>
<td>$495.0</td>
<td>6.7%</td>
</tr>
</tbody>
</table>


### 15.1.9 Funding by Center

#### Figure 15.1.9: Agenda Funding by Center 2002-2007 – Nominal US $ millions

The largest Centers in 2007 were IFPRI ($46.4 million), IITA and CIAT (both $45.1 million), and CIMMYT ($43.3 million). Together, the top four Centers account for 38% of total funding. Over the six-year period, IITA received the largest amount of funding at
$242.2 million. Overall growth rate for the five-year period was 6%, while IFPRI and ICRISAT grew considerably faster at an annual rate of 14% and 13%, respectively.

### 15.1.10  Funding by Center Groups

**Table 15.1.10: “Funding by Center Grouping” Nominal US$ millions, 2002-2007**

<table>
<thead>
<tr>
<th>Centers by Grouping</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>6 Year Total</th>
<th>5 YR CAGR</th>
<th>% of Total Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commodity Centers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa Rice</td>
<td>9.5</td>
<td>10.7</td>
<td>10.4</td>
<td>11.6</td>
<td>11.1</td>
<td>10.2</td>
<td>63.5</td>
<td>2.6%</td>
<td></td>
</tr>
<tr>
<td>CIMMYT</td>
<td>35.4</td>
<td>36.2</td>
<td>41.2</td>
<td>39.3</td>
<td>36.0</td>
<td>43.3</td>
<td>231.3</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>CIP</td>
<td>18.2</td>
<td>18.0</td>
<td>22.3</td>
<td>21.8</td>
<td>22.3</td>
<td>26.0</td>
<td>128.6</td>
<td>5.2%</td>
<td></td>
</tr>
<tr>
<td>ILRI</td>
<td>26.6</td>
<td>29.5</td>
<td>32.9</td>
<td>31.7</td>
<td>26.7</td>
<td>35.2</td>
<td>182.6</td>
<td>7.4%</td>
<td></td>
</tr>
<tr>
<td>IRRI</td>
<td>28.7</td>
<td>27.3</td>
<td>32.4</td>
<td>28.5</td>
<td>27.7</td>
<td>32.5</td>
<td>177.1</td>
<td>7.2%</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>118.4</td>
<td>121.7</td>
<td>139.2</td>
<td>132.9</td>
<td>123.8</td>
<td>147.2</td>
<td>783.1</td>
<td>31.7%</td>
<td></td>
</tr>
<tr>
<td><strong>Eco-regional Centers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIAT</td>
<td>31.3</td>
<td>32.0</td>
<td>36.3</td>
<td>40.3</td>
<td>36.5</td>
<td>45.1</td>
<td>221.5</td>
<td>9.0%</td>
<td></td>
</tr>
<tr>
<td>ICARDA</td>
<td>23.2</td>
<td>25.4</td>
<td>24.8</td>
<td>28.7</td>
<td>24.4</td>
<td>27.7</td>
<td>154.2</td>
<td>6.2%</td>
<td></td>
</tr>
<tr>
<td>ICRISAT</td>
<td>20.0</td>
<td>23.2</td>
<td>27.7</td>
<td>28.4</td>
<td>32.3</td>
<td>37.4</td>
<td>169.0</td>
<td>6.8%</td>
<td></td>
</tr>
<tr>
<td>IITA</td>
<td>31.4</td>
<td>36.6</td>
<td>42.8</td>
<td>41.2</td>
<td>45.1</td>
<td>45.1</td>
<td>242.2</td>
<td>8.8%</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>105.9</td>
<td>117.2</td>
<td>131.6</td>
<td>138.6</td>
<td>138.3</td>
<td>155.2</td>
<td>786.8</td>
<td>31.9%</td>
<td></td>
</tr>
<tr>
<td><strong>Natural Resource Centers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIFOR</td>
<td>12.5</td>
<td>13.6</td>
<td>14.8</td>
<td>16.7</td>
<td>15.7</td>
<td>18.2</td>
<td>91.5</td>
<td>3.7%</td>
<td></td>
</tr>
<tr>
<td>IWMI</td>
<td>20.4</td>
<td>22.1</td>
<td>23.6</td>
<td>23.1</td>
<td>20.0</td>
<td>23.5</td>
<td>132.7</td>
<td>5.4%</td>
<td></td>
</tr>
<tr>
<td>World Agroforestry</td>
<td>21.5</td>
<td>27.3</td>
<td>29.7</td>
<td>30.2</td>
<td>29.9</td>
<td>31.5</td>
<td>170.1</td>
<td>6.9%</td>
<td></td>
</tr>
<tr>
<td>WorldFish</td>
<td>12.7</td>
<td>14.5</td>
<td>14.3</td>
<td>13.3</td>
<td>14.8</td>
<td>15.1</td>
<td>84.8</td>
<td>3.4%</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>67.1</td>
<td>77.5</td>
<td>82.4</td>
<td>83.3</td>
<td>80.4</td>
<td>88.3</td>
<td>479.0</td>
<td>19.4%</td>
<td></td>
</tr>
<tr>
<td><strong>Policy Centers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bioversity (IPGRI)</td>
<td>25.3</td>
<td>27.9</td>
<td>34.8</td>
<td>35.6</td>
<td>31.2</td>
<td>39.0</td>
<td>193.8</td>
<td>7.8%</td>
<td></td>
</tr>
<tr>
<td>IFPRI</td>
<td>23.7</td>
<td>26.5</td>
<td>32.8</td>
<td>38.2</td>
<td>37.2</td>
<td>46.4</td>
<td>204.8</td>
<td>8.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>49.0</td>
<td>54.4</td>
<td>67.6</td>
<td>73.8</td>
<td>68.4</td>
<td>85.4</td>
<td>398.7</td>
<td>16.1%</td>
<td></td>
</tr>
<tr>
<td>ISNAR</td>
<td>7.9</td>
<td>8.3</td>
<td>5.8</td>
<td>5.8</td>
<td>5.8</td>
<td>5.8</td>
<td>22</td>
<td>0.9%</td>
<td></td>
</tr>
<tr>
<td><strong>Total All Centers</strong></td>
<td>348.3</td>
<td>379.10</td>
<td>426.60</td>
<td>428.60</td>
<td>410.86</td>
<td>476.15</td>
<td>2,469.61</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>


Over the five-year period from 2002-2007, policy Centers increased on average by almost 12%, about double the increase in total funding. By 2007, Commodity and Eco-Regional Centers accounted for two-thirds of total funding (about 65%), Natural Resource Centers accounted for 19%, and Policy Centers were 16% of total funding.

**Finding:** There appears to be an increased emphasis on policy.

### 15.1.11  Funding by Major Donor Groups

Members are grouped into categories that include Europe, North America, Pacific Rim, Developing Countries, Foundations, and International and Regional organizations. For example, there are fifteen countries plus the European Commission in the Europe member...
grouping. North America includes Canada and the US. The World Bank funding is included in the International and Regional Organizations grouping. Over the six years from 2002 to 2007, Europe’s contributions of $222 million represented 42% of total contributions of $2.55 billion. Nonmembers contributed more than the Pacific Rim, Developing Countries, and Foundations. With the exception of the EC funding gap in 2006, there were no major declines in funding from year to year during the six-year period. Table 15.1.11 reflects details of funding by member group.

Table 15.1.11: Total Funding By Group

<table>
<thead>
<tr>
<th>US$ Millions Nominal</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>6 YR Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>147</td>
<td>161</td>
<td>181</td>
<td>197</td>
<td>169</td>
<td>222</td>
<td>1,077</td>
</tr>
<tr>
<td>North America</td>
<td>65</td>
<td>76</td>
<td>87</td>
<td>91</td>
<td>88</td>
<td>91</td>
<td>498</td>
</tr>
<tr>
<td>Pacific Rim</td>
<td>26</td>
<td>24</td>
<td>26</td>
<td>24</td>
<td>22</td>
<td>22</td>
<td>144</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>12</td>
<td>12</td>
<td>17</td>
<td>15</td>
<td>14</td>
<td>15</td>
<td>85</td>
</tr>
<tr>
<td>Foundations</td>
<td>13</td>
<td>12</td>
<td>14</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>78</td>
</tr>
<tr>
<td>International and Regional Organizations</td>
<td>69</td>
<td>70</td>
<td>72</td>
<td>73</td>
<td>74</td>
<td>76</td>
<td>434</td>
</tr>
<tr>
<td>Total Members</td>
<td>332</td>
<td>355</td>
<td>396</td>
<td>414</td>
<td>381</td>
<td>437</td>
<td>2,315</td>
</tr>
<tr>
<td>Non-Members</td>
<td>25</td>
<td>25</td>
<td>40</td>
<td>37</td>
<td>45</td>
<td>57</td>
<td>229</td>
</tr>
<tr>
<td>Total Member and Non-Members</td>
<td>357</td>
<td>380</td>
<td>436</td>
<td>451</td>
<td>426</td>
<td>495</td>
<td>2,545</td>
</tr>
</tbody>
</table>


15.1.12 Top Contributors

The largest contributors in 2007 were the EC, United States, and the World Bank.

While nonmembers represent a category and not a single member organization, it is interesting to note that nonmembers have contributed $229 million over the period, the 3rd highest contribution with only the US and World Bank showing higher amounts. The top five member contributors over the past six years include the United States, the World Bank, the United Kingdom, the EC, and Canada. Totals for the period range from $340 million from the United States to $159 million from Canada.

Table 15.1.12: Top Contributors

<table>
<thead>
<tr>
<th>US$ Millions Nominal</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>6 Yr Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>55</td>
<td>56</td>
<td>54</td>
<td>55</td>
<td>61</td>
<td>60</td>
<td>340</td>
</tr>
<tr>
<td>World Bank</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>300</td>
</tr>
<tr>
<td>NonMembers(w/Gates)</td>
<td>26</td>
<td>25</td>
<td>40</td>
<td>37</td>
<td>45</td>
<td>57</td>
<td>229</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>25</td>
<td>26</td>
<td>35</td>
<td>44</td>
<td>44</td>
<td>45</td>
<td>219</td>
</tr>
<tr>
<td>European Commission</td>
<td>25</td>
<td>27</td>
<td>26</td>
<td>31</td>
<td>7</td>
<td>62</td>
<td>178</td>
</tr>
<tr>
<td>Canada</td>
<td>11</td>
<td>21</td>
<td>33</td>
<td>36</td>
<td>27</td>
<td>31</td>
<td>159</td>
</tr>
<tr>
<td>Netherlands</td>
<td>17</td>
<td>19</td>
<td>21</td>
<td>24</td>
<td>20</td>
<td>14</td>
<td>115</td>
</tr>
<tr>
<td>Switzerland</td>
<td>16</td>
<td>16</td>
<td>18</td>
<td>18</td>
<td>17</td>
<td>18</td>
<td>102</td>
</tr>
<tr>
<td>Germany</td>
<td>11</td>
<td>12</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>16</td>
<td>84</td>
</tr>
<tr>
<td>Sweden</td>
<td>11</td>
<td>14</td>
<td>15</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>81</td>
</tr>
<tr>
<td>Japan</td>
<td>17</td>
<td>15</td>
<td>14</td>
<td>11</td>
<td>9</td>
<td>9</td>
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</table>
Since 2002, the Gates Foundation has contributed $40 million according to CGIAR financial reports.

However, the Gates foundation made payments to the CGIAR and its affiliated Centers in the amount of $68 million for the six-year period according to financial statements issued by Gates. Using the total funding of $68 million rather than $40 million, Gates would have been the fourth largest contributor to the CGIAR and its affiliated Centers in 2007. Of course, there is no way of adjusting all the other donors to a cash basis in order to make a clean comparison, but we highlight Gates in this review due to the significant commitments already made to the CGIAR and affiliated Centers. We have asked the Secretariat to provide additional information regarding Gates commitments to-date.

Table 15.1.13 Gates Foundation Disbursements to CGIAR Affiliated Centers 2002-2007

<table>
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<tr>
<th>Actual Cash Disbursements</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
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<td>Gates Foundation Disbursements to CGIAR Affiliated Centers</td>
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<td>2</td>
<td>7</td>
<td>13</td>
<td>43</td>
<td>68</td>
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</tbody>
</table>

The major issue regarding Gates is the fact that their contributions are expected to increase significantly over the next couple of years. To the extent that the Gates Foundation maintains involved in the program and project development decisions, the organization will play a formidable role in the field of agricultural research and possibly a major role in shaping the future programs of the CGIAR and its affiliated Centers. All of this will be accomplished without becoming a member of the CGIAR and raises a serious question regarding the relevancy of membership going forward if major contributors are outside the CGIAR System.

15.1.13 World Bank Allocations

The World Bank has consistently donated $50 million to the CGIAR and its affiliated Centers for each of the past six years (2002-2007). World Bank funding is the largest single source of unrestricted funding to the Centers. Since the inception of the Challenge Programs, general support to the Centers has decreased while CP funding has increased from $1 million in 2002 to $7 million in 2007.
Figure 15.1.10: World Bank Allocations

![Allocation of World Bank Funding](image)


Figure 15.1.11 reflects the World Bank’s annual allocation to the Centers, the Challenge Programs, and the System Office and Committees.

**Figure 15.1.11: World Bank Funding by End User**

![Allocation of $50 million Annual World Bank Funding](image)


15.1.14 Inefficiencies of the Current Funding Structure

The high level of inefficiency that exists within the current financing structure is evidenced by a look at the allocation of funding by members across the fifteen Centers. Table 15.1.14
below shows restricted funding for 2007 by member by Center. The current System has several shortcomings:

- **A matrix of 64 members X 15 Centers makes it difficult to coordinate program level activities and lacks scale economies that might be derived from being part of a larger System.** There are many, potentially 64 X 15 = 960, relationships being managed simultaneously across the CGIAR System. This increases transaction costs and makes coordination across Centers and programs difficult.

- **The current financing matrix lends a bias to highly fragmented, smaller projects, rather than program level and strategic management of funding, especially with restricted funding.** For example, the EC is one of the largest donors with an average annual contribution of $30 million (2007 included 2006 amounts and totaled $64 million). However, the EC makes contributions to each of the 15 Centers, and therefore, averages a much more modest $2 million per Center. With Challenge Programs also entering into the mix for funding, an additional layer of confusion enters the picture. With most members donating significantly less than the EC, the problem is exacerbated when a small donor splits restricted contributions across many Centers.

A quick glance of Table 15.1.14 illustrates the highly fragmented and increasing number of small allocations that are made on a restricted basis. For example:

- 15 members or countries made annual contributions of less than $500k (total for the year across all Centers), and funding was allocated across an average of 3.6 Centers. At the Center level, the contributions were further divided into individual grants; in some cases the annual contributions were as small as $4,000.

- 12 members contributed between $500,000 – $1,000,000 in 2007, with an average contribution per Center ranging from $15,000 to $100,000.

- Almost 60% of members contributed less than $1 million in 2007.

- 13 Members contributed between $1 to $5 million.

**Finding:** The current financing system, by nature of its own design, and its lack of a mechanism for small donors to pool funds, creates some of the problems with restricted funding (i.e., small, fragmented project-by-project grants). As discussed in more detail in other sections, the CG and Centers also play a role in allocating small amounts of restricted funding from a single donor across several Centers (for example with the CPs).
### Table 15.1.14: Inherent Inefficiencies in the Allocation of Restricted Funding by Donor by Center for 2007, US$ Millions

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<tr>
<th>Members</th>
<th>Africa Rice</th>
<th>Bioversity</th>
<th>CIAT</th>
<th>CIFOR</th>
<th>CIMMYT</th>
<th>CIAP</th>
<th>ICARDA</th>
<th>ICrisat</th>
<th>IFPRI</th>
<th>ITA</th>
<th>ILRI</th>
<th>IRRI</th>
<th>IWM</th>
<th>World Agro Forestry</th>
<th>World Fish</th>
<th>CGIAR</th>
<th>CP</th>
<th>Partners Total</th>
<th>Restricted Funding</th>
<th>Unrestricted Funding</th>
<th>Total Funding</th>
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Chapter 15 Financial Management
### Independent Review of the CGIAR System

#### Table 15.1.14: Inherent Inefficiencies in the Allocation of Restricted Funding by Donor by Center for 2007, US$ Millions

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<th>Africa Rice</th>
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<th>CIMMYT</th>
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<th>IRRI</th>
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Chapter 15 Financial Management
### Table 15.1.14: Inherent Inefficiencies in the Allocation of Restricted Funding by Donor by Center for 2007, US$ Millions

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Chapter 15: Financial Management
Table 15.1.14: Inherent Inefficiencies in the Allocation of Restricted Funding by Donor by Center for 2007, US$ Millions

| Members          | Africa Rice | Bioversity | CIAT | CIFOR | CIIMMYT | CIP | ICARDA | ICRISAT | IFPRI | IITA | ILRI | IRRI | IWMI | World Agro forestry | World-Fish | CGIAR | CP | Participants | Restricted | Unrestricted | Total | All Funding |
|------------------|-------------|------------|------|-------|---------|-----|--------|---------|-------|------|------|------|------|-------|----------------------|-------------|-------|---|--------------|------------|-------------|-------|------------|
| Arab Fund        | -           | -          | -    | -     | -       | 1.3 | -      | -       | -     | -    | -    | -    | -    | -     | 1.3                  | 0           | 1.3   |
| FAO              | -           | 0.3        | 0.1  | 0.2   | 0.1     | 0.6 | 0.2    | 0.1     | 0.1   | 0.0  | 0.0  | 0.1  | 0.0  | -     | 2.1                  | .8          | 2.9   |
| Gulf Cooperation Council | -           | -          | -    | -     | -       | 0.6 | -      | -       | -     | -    | -    | -    | -    | -     | 0.6                  | 0           | .6    |
| IDB              | -           | 0.1        | 0.5  | -     | -       | -   | 0.0    | 0.5     | -     | -    | -    | -    | -    | -     | 1.1                  | 0           | 1.1   |
| IFAD             | 0.3         | 1.1        | 0.4  | 0.3   | 0.7     | 1.7 | 1.1    | 0.4     | 0.6   | 0.1  | 0.9  | 0.1  | -    | -     | 8.6                  | 0           | 8.6   |
| OPEC Fund        | -           | 0.0        | -    | 0.1   | 0.0     | 0.2 | 0.1    | -       | 0.0   | -    | 0.0  | -    | 0.0  | -     | 0.5                  | 0           | .5    |
| UNDP             | 0.5         | -          | -    | -     | -       | 0.0 | -      | 0.2     | -     | -    | 0.1  | 0.0  | -    | 0.8   | 0.8                  | 0           | .8    |
| UNEP             | -           | 2.8        | 0.9  | 0.2   | -       | 0.0 | 1.8    | -       | -     | -    | 0.5  | 0.5  | -    | 6.7   | 0.7                  | 0           | 6.7   |
| World Bank       | -           | -          | -    | -     | -       | 0   | -      | -       | -     | -    | -    | -    | -    | -     | 0                   | 50          | 50    |
| Subtotal         | 0.7         | 4.3        | 2.3  | 0.6   | 1.1     | 0.2 | 4.6    | 3.1     | 2.0   | 0.7  | 0.5  | 1.8  | 0.4  | 1.6   | 1.4                  | 0.1         | 25.4  |
| Inter-Center activities | -         | 0.8        | 0.8  | 0.1   | 0.2     | 1.8 | 0.9    | 1.2     | 1.7   | 0.5  | 1.0  | 0.0  | 0.7  | 0.5   | 0.0                  | -           | 10.2  |
| Subtotal         | -           | 0.8        | 0.8  | 0.1   | 0.2     | 1.8 | 0.9    | 1.2     | 1.7   | 0.5  | 1.0  | 0.0  | 0.7  | 0.5   | 0.0                  | -           | 10.2  |
| Total Members    | 4.8         | 19.1       | 26.5 | 8.5   | 20.4    | 14.2 | 16.5   | 21.2    | 25.6  | 26.2 | 18.3 | 17.1 | 15.2 | 15.7  | 8.5                  | 10.9        | 268.5 |
| Total Non-Members| 0.5         | 1.7        | 5.2  | 1.3   | 9.3     | 3.4 | 0.7    | 4.2     | 7.4   | 5.7  | 2.9  | 1.7  | 0.7  | 6.0   | 0.8                  | 5.7         | 57.3  |
| Total funding at Center level | 5.2         | 20.8       | 31.7 | 9.9   | 29.7    | 17.6 | 17.1   | 25.4    | 33.0  | 31.8 | 21.2 | 18.8 | 15.9 | 21.7  | 9.3                  | 16.6        | 325.8 |
| less Inter-Center activities | -         | (0.8)      | $(0.8)$ | (0.1) | (0.2)   | (1.8) | (0.9)  | (1.2)    | (1.7) | (0.5) | (1.0) | (0.0) | (0.7) | (0.5) | (0.0)                | -           | (10.2) |
| Total            | $ 5.2       | $ 20.0     | $ 30.9 | $ 9.8 | $ 29.5  | $ 15.8 | $ 16.2 | $ 24.2  | $ 31.3 | $ 31.4 | $ 20.2 | $ 18.8 | $ 15.2 | $ 21.2  | $ 9.3                 | $ 16.6     | $315.6 |

Chapter 15 Financial Management
15.2 Total Expenditures by the CGIAR and Its Affiliated Centers

Although the budgets of the Centers have increased in nominal terms over the past thirteen years, the “after inflation” numbers have been relatively flat. Expenditures by the CGIAR and its affiliated Centers in 2007 totaled $506 million, an increase of $168 million since 1995. However, adjusted for inflation and restated in 2007 constant dollars, expenditures increased only $7 million, or 1% over the twelve years. Figure 15.2.1 shows the nominal and real dollar expenditures from 1995-2007 for the CGIAR and its Affiliated Centers.

Figure 15.2.1: CGIAR Total Expenditures, 1995-2007

![Graph showing nominal and constant dollar expenditures from 1995 to 2007 for the CGIAR and its Affiliated Centers.]


The conversion from nominal to constant dollars is based on Center inflation rates as reported by the CGIAR Annual Financial Reports. The rates are dollar-based annual rates and take into consideration annual changes in exchange rates and the currency basket of Center’s expenditures.8

Total expenditures of $506 million for 2007 can be segmented into three major categories; (1) expenditures at the Center Level of $458 million, (2) expenditures for Challenge Programs of $48 million, and (3) System Office expenditures of $10.3 million. For 2007, the segment totals are listed in Table 15.2.1. Note that the adjustments for inter-center activities are made at the System level. In effect, this removes $10.2 million in expenses that were actually inter-Center transfers.

Table 15.2.1: 2007 Total Expenditures by Category for CGIAR and Affiliated Centers

<table>
<thead>
<tr>
<th>CGIAR Summary Expenditures</th>
<th>$US Millions-Nominal</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centers</td>
<td>$ 458</td>
<td></td>
</tr>
<tr>
<td>Challenge Programs –Centers</td>
<td>$ 31</td>
<td></td>
</tr>
<tr>
<td>Challenge Programs- Partners</td>
<td>$ 17</td>
<td></td>
</tr>
<tr>
<td>Total Challenge Programs</td>
<td>$ 48</td>
<td></td>
</tr>
<tr>
<td>World Bank Allocation to System Office and Committees</td>
<td>$ 10</td>
<td></td>
</tr>
</tbody>
</table>
15.2.1 Expenditures at the Center Level

Expenditures at the Center level increased in nominal terms by $117 million during the past six years. In real dollars, expenditures were relatively flat increasing by only $27 million over the period. In 2007, CIAT was the largest Center with expenditures of $48.9 million and Africa Rice was the smallest Center with expenditures $10.3 million.

Table 15.2.2: Expenditures by Center

<table>
<thead>
<tr>
<th>Expenditures By Center</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIAT</td>
<td>32.6</td>
<td>32.9</td>
<td>36.7</td>
<td>42.4</td>
<td>41.8</td>
<td>48.9</td>
<td>235.3</td>
</tr>
<tr>
<td>IFPRI</td>
<td>23.5</td>
<td>26.5</td>
<td>31.4</td>
<td>39.7</td>
<td>39.1</td>
<td>45.7</td>
<td>205.9</td>
</tr>
<tr>
<td>IITA</td>
<td>32.7</td>
<td>37.7</td>
<td>42.6</td>
<td>40.2</td>
<td>44.4</td>
<td>44.7</td>
<td>242.3</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>41.5</td>
<td>37.5</td>
<td>41.1</td>
<td>38.8</td>
<td>37.4</td>
<td>43.9</td>
<td>240.2</td>
</tr>
<tr>
<td>ILRI</td>
<td>28.8</td>
<td>31.0</td>
<td>31.7</td>
<td>32.2</td>
<td>34.8</td>
<td>40.6</td>
<td>199.1</td>
</tr>
<tr>
<td>ICRISAT</td>
<td>24.8</td>
<td>24.0</td>
<td>26.8</td>
<td>28.4</td>
<td>34.0</td>
<td>37.8</td>
<td>175.8</td>
</tr>
<tr>
<td>IRI</td>
<td>33.6</td>
<td>28.8</td>
<td>32.9</td>
<td>33.4</td>
<td>33.3</td>
<td>37.7</td>
<td>199.7</td>
</tr>
<tr>
<td>Bioversity</td>
<td>25.7</td>
<td>28.3</td>
<td>32.0</td>
<td>34.6</td>
<td>34.6</td>
<td>37.6</td>
<td>192.8</td>
</tr>
<tr>
<td>World Agroforestry</td>
<td>21.9</td>
<td>27.4</td>
<td>28.5</td>
<td>30.0</td>
<td>31.9</td>
<td>30.4</td>
<td>170.1</td>
</tr>
<tr>
<td>ICARDA</td>
<td>24.3</td>
<td>26.2</td>
<td>24.6</td>
<td>29.1</td>
<td>27.0</td>
<td>27.1</td>
<td>158.3</td>
</tr>
<tr>
<td>CIP</td>
<td>19.3</td>
<td>17.6</td>
<td>21.5</td>
<td>22.0</td>
<td>22.9</td>
<td>26.1</td>
<td>129.4</td>
</tr>
<tr>
<td>IWMI</td>
<td>20.8</td>
<td>23.0</td>
<td>23.1</td>
<td>23.1</td>
<td>20.6</td>
<td>24.0</td>
<td>134.6</td>
</tr>
<tr>
<td>WorldFish</td>
<td>12.3</td>
<td>15.5</td>
<td>14.1</td>
<td>15.2</td>
<td>15.5</td>
<td>17.3</td>
<td>89.9</td>
</tr>
<tr>
<td>CIFOR</td>
<td>11.7</td>
<td>13.6</td>
<td>15.1</td>
<td>17.5</td>
<td>16.5</td>
<td>16.9</td>
<td>91.3</td>
</tr>
<tr>
<td>Africa Rice</td>
<td>9.8</td>
<td>10.1</td>
<td>10.1</td>
<td>10.9</td>
<td>11.2</td>
<td>10.3</td>
<td>62.4</td>
</tr>
<tr>
<td>ISNAR</td>
<td>8.9</td>
<td>12.8</td>
<td>2.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>24.1</td>
</tr>
<tr>
<td>Total</td>
<td>372.2</td>
<td>392.9</td>
<td>414.6</td>
<td>437.5</td>
<td>445.0</td>
<td>489.0</td>
<td>2551.2</td>
</tr>
<tr>
<td>Less: Challenge Programs</td>
<td>0.0</td>
<td>7.8</td>
<td>14.0</td>
<td>25.0</td>
<td>29.0</td>
<td>31.0</td>
<td>106.8</td>
</tr>
<tr>
<td>Center Funding w/o CPs</td>
<td>372.2</td>
<td>385.1</td>
<td>400.6</td>
<td>412.5</td>
<td>416.0</td>
<td>458.0</td>
<td>2444.4</td>
</tr>
</tbody>
</table>

15.2.2 Expenditures for System Office and Committees

The System Office helps to capture wider system opportunities by identifying and pursuing opportunities to increase effectiveness, reduce costs, and enhance the funding of the System as a whole.

The System Office is mandated to integrate and improve existing services in four functional categories:

- Strategic planning and development
- Monitoring and Evaluation
- Communication and Resource Mobilization
- Management Services

The System Office consists of eight units that together assist the CGIAR System in implementing its vision, mission and strategy. The virtual office was established to enhance the efficiency, responsiveness and overall performance of each unit.

Table 15.2.3: System Office Units

<table>
<thead>
<tr>
<th>UNIT NAME</th>
<th>General Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Advisory Service on Intellectual Property</td>
<td>The overall goal/vision of CAS-IP is to enable access and use of CGIAR products for the benefit of the poor through effective IP and technology transfer management.</td>
</tr>
<tr>
<td>CGIAR Secretariat</td>
<td>The Secretariat serves as the hub of the CGIAR System, and plays a significant integration and facilitation role to ensure that collective action by many independent but inter-dependent entities is directed towards the achievement of the CGIAR's mission. It plans and implements communication within the CGIAR System, as well as a wide-ranging program of public</td>
</tr>
</tbody>
</table>
**UNIT NAME** | **General Description**
--- | ---
Chief Information Office - ICT-KM Site | The ICT-KM Program of the CGIAR promotes and supports the use of information and communications technology (ICT) and knowledge management (KM) to improve the effectiveness of the CGIAR System's work on behalf of the poor in developing countries.
Alliance Office | The Alliance Office provides strategic policy and administrative support to the CGIAR Centers. It works with the Alliance Board, the Alliance Executive, the Alliance Deputy Executive-Science and Finance and the Centers for more effective coordination of collective action, including for implementation of the decisions of the Alliance Board and the Alliance Executive.
Gender and Diversity | The purpose of the Gender and Diversity Program is to help the CGIAR Centers leverage their rich staff diversity to increase research and management excellence.
Internal Audit | Internal Audit services to the Centers include assurance and advice in relation to a wide range of aspects of a Center’s operations, including Center Governance, Research Operations, Management of Physical infrastructure, Finance and Administration, Technology and Outreach activities.
Media Unit | The goal of the Media Unit is to highlight for farmers, policy makers and others the achievements and impacts of research for development and thus to promote wider adoption of successful technologies. The Media Unit is also committed to strengthening media coverage of African agricultural issues.
Science Council Secretariat | To enhance and promote the quality, relevance and impact of science in the CGIAR, to advise the group on strategic scientific issues of importance to its goals and to mobilize and harness the best of international science for addressing the goals of the international agricultural research community.

Source: CGIAR website

### 15.2.3 Detailed System Office Expenditures

The World Bank, CG Members, and the FAO share the cost of the System Office. In 2006, the total cost of the System Office was $13.8 million. Costs were shared by the World Bank ($9.3 million), CG Members ($1.8 million), and the FAO ($0.8 million) respectively. A miscellaneous item for $0.06 million also appeared in 2006, but it is unclear which entity paid for this expense. At the very least, the reporting of System Office expenditures is confusing.

For example, $4.5 million of the total expenses do not show up in the System Office detailed expenses for the year (on System Office website), but appear as System level costs which are paid with the World Bank’s allocation to the CGIAR. Also, it is not possible to reconcile the detailed System Office financial statement that appears on the SO website with amounts reported in the aggregated Financial Reports of the CGIAR because the amounts paid by FAO are not included and the costs paid by the Centers are embedded within the Centers’ Statement of Activities.

**Table 15.2.4: System Office Expenditures 2006 Actuals**

<table>
<thead>
<tr>
<th>Total System Office Units 2006 (US$ 000’s)</th>
<th>Paid by World BANK</th>
<th>Paid by CG Members</th>
<th>Paid By FAO</th>
<th>Carryover</th>
<th>Paid By Centers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGIAR Secretariat</td>
<td>$4,190</td>
<td>-</td>
<td>-</td>
<td>$ -</td>
<td>$4,190</td>
<td></td>
</tr>
<tr>
<td>Science Council Secretariat</td>
<td>$786</td>
<td>$587</td>
<td>$786</td>
<td>$ -</td>
<td>$2,159</td>
<td></td>
</tr>
</tbody>
</table>
Table 15.2.4 attempts to reconcile reported expenditures with additional details that have been provided by the System Office. Detailed expenses for 2007 for each of the System Office units are not available at this time. Also note that this is the Panel’s best estimate of a reconciliation of the two sources given data made available.

Finding: The reporting of System Level expenditures needs to be made more transparent. Additional details in the CGIAR Financial Report would be helpful in understanding the components of the System Office expenditures and would allow for trends to be tracked more accurately.

15.2.4 Total Costs by Type of Expenditure

The Centers’ operating costs can be viewed according to the type of expenditure or object of expenditure. The major cost categories are personnel, supplies & services, collaboration & partnerships, travel and depreciation. Personnel costs and supplies/services are the largest cost categories and account for 44% and 30% of the total $489 million in expenditures in 2007. In 2003, a new category known as “collaboration & partnerships” was added. This category is growing rapidly and reached $74 million or 15% of costs by 2007. Based on discussion with the CGIAR Secretariat staff, this category represents the total amount paid to partners during the year.
Table 15.2.5: Annual Expenditures by the CGIAR and Affiliated Centers by Object of Expenditure, 2002-2007

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel Costs</td>
<td>$182.3</td>
<td>$180.8</td>
<td>$186.8</td>
<td>$197.1</td>
<td>$209.2</td>
<td>$215.2</td>
<td>18.0%</td>
</tr>
<tr>
<td>Supplies &amp; Services</td>
<td>$148.8</td>
<td>$121.8</td>
<td>$120.4</td>
<td>$118.3</td>
<td>$120.2</td>
<td>$146.7</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Collaboration &amp; Partnerships</td>
<td>$-</td>
<td>$47.2</td>
<td>$58.1</td>
<td>$70.1</td>
<td>$62.3</td>
<td>$73.4</td>
<td>55.5%</td>
</tr>
<tr>
<td>Travel</td>
<td>$26.0</td>
<td>$27.5</td>
<td>$33.2</td>
<td>$35.0</td>
<td>$35.6</td>
<td>$34.2</td>
<td>31.5%</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$14.9</td>
<td>$15.7</td>
<td>$16.6</td>
<td>$17.5</td>
<td>$17.8</td>
<td>$19.6</td>
<td>31.5%</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>$372.0</td>
<td>$393.0</td>
<td>$415.0</td>
<td>$438.0</td>
<td>$445.0</td>
<td>$489.0</td>
<td>31.5%</td>
</tr>
</tbody>
</table>


Figure 15.2.3: Costs by Object of Expenditure

Finding: Expenditures on Collaborations and Partnerships have increased faster than any other category and are a significant (15%) component of total expenditures System wide. Additional information and details related to such expenditures are needed to understand what portion is
related to Challenge Programs and what portion represents expenditures outside the CGIAR System.

15.2.5 Expenditure by Region

Expenditures by region have remained relatively stable from 2002-2007. The Centers’ activities in Sub-Saharan Africa represent about 48% of total expenditures. Asia comprises about 29% of expenditures and the remaining 23% is split between the Latin America (13%) and CWANA (Central and West Asia and North Africa) (10%) regions. See Figure 15.2.4.

**Figure 15.2.4: Expenditure by Region as % of Total**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sub-Saharan Africa</th>
<th>Asia</th>
<th>Latin America and the Caribbean</th>
<th>West Asia and North Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>219.84</td>
<td>132.82</td>
<td>64.12</td>
<td>41.72</td>
</tr>
<tr>
<td>2004</td>
<td>207.92</td>
<td>135.60</td>
<td>51.28</td>
<td>45.20</td>
</tr>
<tr>
<td>2003</td>
<td>199.75</td>
<td>136.00</td>
<td>48.00</td>
<td>45.20</td>
</tr>
<tr>
<td>2002</td>
<td>177.75</td>
<td>126.40</td>
<td>55.30</td>
<td>35.55</td>
</tr>
<tr>
<td>2001</td>
<td>163.83</td>
<td>125.73</td>
<td>57.15</td>
<td>34.79</td>
</tr>
<tr>
<td>2000</td>
<td>152.65</td>
<td>110.05</td>
<td>60.35</td>
<td>31.29</td>
</tr>
<tr>
<td>1999</td>
<td>141.96</td>
<td>108.16</td>
<td>57.46</td>
<td>30.42</td>
</tr>
<tr>
<td>1998</td>
<td>146.58</td>
<td>111.68</td>
<td>59.33</td>
<td>31.41</td>
</tr>
<tr>
<td>1997</td>
<td>141.2</td>
<td>112.96</td>
<td>63.54</td>
<td>35.3</td>
</tr>
<tr>
<td>1996</td>
<td>135.4</td>
<td>107.26</td>
<td>58.82</td>
<td>35.7</td>
</tr>
</tbody>
</table>


At the Center level, Africa Rice and IITA invest 100% of their resources in Sub-Saharan Africa with a combined contribution of $55 million. ICRISAT, IFPRI, ILRI, and Agroforestry invest 50% or more in Sub-Saharan Africa. IRRI and WorldFish are the largest investors in Asia.

15.2.6 Expenditure by Output

Investments can also be viewed according to the types of program the expenditures support. CGIAR identifies the following as “output” areas:
15.2.5 Expenditure by Type of Output

<table>
<thead>
<tr>
<th>Year</th>
<th>Strengthening NARS</th>
<th>Improving Policy</th>
<th>Saving Biodiversity</th>
<th>Protecting the Environment</th>
<th>Increasing Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>74.55</td>
<td>42.6</td>
<td>39.05</td>
<td>56.8</td>
<td>142</td>
</tr>
<tr>
<td>1997</td>
<td>72.66</td>
<td>38.06</td>
<td>38.82</td>
<td>58.82</td>
<td>138.4</td>
</tr>
<tr>
<td>1998</td>
<td>74.13</td>
<td>42.36</td>
<td>67.07</td>
<td>67.07</td>
<td>130.61</td>
</tr>
<tr>
<td>1999</td>
<td>80.27</td>
<td>45.37</td>
<td>69.8</td>
<td>67.15</td>
<td>118.66</td>
</tr>
<tr>
<td>2000</td>
<td>74.36</td>
<td>47.32</td>
<td>60.84</td>
<td>68.58</td>
<td>121.68</td>
</tr>
<tr>
<td>2001</td>
<td>83.82</td>
<td>49.7</td>
<td>63.9</td>
<td>67.75</td>
<td>127.8</td>
</tr>
<tr>
<td>2002</td>
<td>86.9</td>
<td>57.15</td>
<td>68.13</td>
<td>72.25</td>
<td>133.35</td>
</tr>
<tr>
<td>2003</td>
<td>85.0</td>
<td>63.2</td>
<td>68.58</td>
<td>76.84</td>
<td>143.35</td>
</tr>
<tr>
<td>2004</td>
<td>90.4</td>
<td>68.2</td>
<td>72.75</td>
<td>76.84</td>
<td>148.75</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>153.68</td>
</tr>
</tbody>
</table>

Source: CGIAR Financial Reports; Center Medium Term Plans
Note: The CGIAR no longer reports this information in its annual financial reports and comparable data is not readily available for analysis.

15.2.7 Relationship Between Costs and Unrestricted/Restricted Funding

Restricted and unrestricted funding are terms that properly apply to revenues. However for reporting purposes, Centers allocate expenses to either restricted, unrestricted, or Challenge Program categories. This allocation is presented annually in each Center’s financial report in the “Statement of Activities”.

For the purpose of understanding how costs are reported by Center, Table 15.2.6 shows a summary of IRRI’s Statement of Activities for 2006. Of the $33.5 million in total operating expenses incurred in 2006, $18.5 million, $10.4 million, and $4.7 million were allocated to unrestricted, restricted, and Challenge Programs respectively. It is important to note that accounting rules govern the manner in which Centers recognize revenue and expenses on restricted projects. On the revenue side, revenues are recorded when expenses are incurred. For example, if projects and planned expenditures are delayed, then revenue recognition is also delayed. Although donor funding may be available, a project on “hold”
cannot record revenues until activities resume and costs related to that specific project are incurred. This is a major challenge in managing restricted funding. Delays in project implementation translate directly to delays in recognizing revenues. Unless personnel can be reassigned to other active projects, the Center must bear the full cost of salaries and other costs during delays. The only available resource to cover such expenses is unrestricted funding. Project delays create additional costs in almost all situations, but chronic delays in the implementation of restricted projects place a major strain on unrestricted funding and have been noted by several Centers as contributing to annual deficits.

Table 15.2.6: IRRI Statement of Activities Summary 2006

<table>
<thead>
<tr>
<th>IRRI 2006 (US$ thousands)</th>
<th>Unrestricted</th>
<th>Temporarily Restricted*</th>
<th>Challenge Programs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants</td>
<td>$ 12,836</td>
<td>$ 10,414</td>
<td>$ 4,660</td>
<td>$ 27,910</td>
</tr>
<tr>
<td>Other Revenues</td>
<td>$ 2,269</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 2,269</td>
</tr>
<tr>
<td></td>
<td>$ 15,105</td>
<td>$ 10,414</td>
<td>$ 4,660</td>
<td>$ 30,179</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Related</td>
<td>$ 13,541</td>
<td>$ 10,057</td>
<td>$ 4,660</td>
<td>$ 28,258</td>
</tr>
<tr>
<td>Management and General</td>
<td>$ 6,210</td>
<td>$ 357</td>
<td>$ -</td>
<td>$ 6,567</td>
</tr>
<tr>
<td></td>
<td>$ 19,751</td>
<td>$ 10,414</td>
<td>$ 4,660</td>
<td>$ 34,825</td>
</tr>
<tr>
<td>Recovery of indirect costs</td>
<td>$ (1,274)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ (1,274)</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>$ 18,477</td>
<td>$ 10,414</td>
<td>$ 4,660</td>
<td>$ 33,551</td>
</tr>
<tr>
<td>Net deficit from ordinary activities</td>
<td>$ (3,372)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ (3,372)</td>
</tr>
</tbody>
</table>

* of which US $1.76 million is attributed funding;
* temporarily restricted means funds are restricted until certain milestones are met

Source: 2006 Financial Statement for IRRI

A second aspect of restricted project accounting is the manner in which costs are reported. For reporting purposes, costs for restricted projects cannot exceed total restricted funding for the project. By definition, this means that restricted revenues will always equal restricted expenses on the Center’s annual Statement of Activities. Using IRRI as an example, restricted revenues and expenses equal $10.4 million. This does not mean, however, that total costs on restricted projects were equal to $10.4 million. There could be costs related to restricted projects that are covered by unrestricted funds, but the current financial reports would not make that apparent. For example, if actual expenses on a restricted project exceed the total amount of funding available, the costs are covered, again, by unrestricted funds. As a result, the costs that show in the restricted funding column are not necessarily the total costs on restricted projects. Translated, this also means that deficits reported for the Centers will always be reported under “unrestricted” categories, even though some deficits may be due to cost overruns on restricted projects.

The Statement of Activities in the audited financial reports of each of the Centers also provides useful information regarding the type of costs that are typically covered by either restricted or unrestricted funds. For example, total program related expenditures of
$28.2 million were allocated to all three categories – restricted, unrestricted, and Challenge
Programs. Management and General Expenses of $6.6 million were covered primarily by
unrestricted funding.

15.2.8 Direct and Indirect Operating Costs

One of the basic ways to manage costs is to understand the drivers of different types of
costs. As is typical with most organizations, the Centers have sorted costs into two major
categories- direct and indirect operating costs. Indirect costs, simply stated, are those costs
that are not directly attributable to a single project or activity. Indirect costs include
general and administrative expenses, expenditures applicable to the Board of Trustees,
management, finance, supplies, building maintenance, security, depreciation and general
services and housing. Direct costs are program related expenses incurred by the
organization’s principal programs and supporting cost centers and include research,
research support, information services, and training. In general, indirect costs are referred
to as overhead costs and are typically fixed. Direct costs are variable and increase and
decrease with project activity.

The recent discussions and focus on indirect costs stem from a “sense” that perhaps
restricted-funding projects are not bearing enough of the load of indirect costs at the
Center level. Additionally, some Centers have encountered financial difficulties because
they were not managing total costs for projects due to contract restrictions that did not
allow for recovery of indirect costs. In the case of CIAT, the situation was extreme, with
some contracts not fully recovering even direct costs, let alone indirect costs. In a situation
where direct costs are not being recovered there is only one outcome – financial losses and
deficits. Perhaps a decade ago, there were sufficient unrestricted funds to cover all of the
costs not recovered under restricted projects. Today, with unrestricted funding levels
declining, it is imperative that Centers manage total costs and recover full costs whenever
possible under the contract.

In an effort to assist the Centers in managing costs, the CGIAR Secretariat developed a
methodology to implement full cost recovery for Center projects. This methodology is
widely accepted as best practice for government and industry alike and considerable time
and effort was devoted to ensure that Centers use the methodology. As part of the
System-wide reform efforts, Centers now report on direct and indirect cost ratios in their
audited financial reports. This information is useful for a number of reasons:

First, the calculation helps track actual overhead costs at each of the Centers and provides
a benchmark for identifying trends. Second, it provides managers at the program levels
with a proxy for determining the total true cost of doing business. Third, it expands
responsibilities for managing overhead costs beyond the senior administrators and moves
responsibilities out into the operating ranks, where most of the services are actually
consumed (like HR, facilities, etc). Finally, it is a useful tool for program managers to use in negotiating contractual rates.

Table 15.2.7: IRRI Direct and Indirect Operation Costs – 2006

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Operating Expenses</td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>$24,791</td>
</tr>
<tr>
<td>Research Support</td>
<td>$ 2,952</td>
</tr>
<tr>
<td>Operations</td>
<td>$ 1,256</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$28,999</td>
</tr>
<tr>
<td>Less: Overhead recovery</td>
<td>$(1,274)</td>
</tr>
<tr>
<td>Total Direct</td>
<td>$27,725</td>
</tr>
<tr>
<td>Indirect Operating Expenses</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>$ 2,877</td>
</tr>
<tr>
<td>Common sustenance services</td>
<td>$ 2,949</td>
</tr>
<tr>
<td>Total Indirect</td>
<td>$ 5,826</td>
</tr>
<tr>
<td><strong>Total ALL</strong></td>
<td><strong>$33,551</strong></td>
</tr>
</tbody>
</table>


Both Table 15.2.7 and Table 15.2.6 identify a line item known as “recovery of indirect costs” in the amount of $1,274. This is the amount of indirect overhead (indirect) expense that IRRI recovered through restricted projects. The allocation was based on the relationship between total indirect costs and total direct costs. In IRRI’s case, the ratio is 21%. This means that for every $1 in direct costs, there is $0.21 in indirect costs. This is also known as the billing rate for indirect costs. In IRRI’s case, they recovered $1,274 of the total $5,826 of overhead via direct billing to restricted projects (in 000’s). Table 15.2.8 reflects total revenues and expenses for each of the 15 Centers as reported in their respective audited financial reports. As part of the reporting requirements, each Center identifies the amount of indirect costs recovered directly through projects. As one can see, the level of indirect cost recovery varies significantly by Center. It’s important to note that 13 of the Centers initially include the amount recovered for indirect costs in their direct cost line then back it out on a separate line. IFPRI and CIMMYT, however, reported their indirect recovery amounts somewhat differently and did not adjust direct expenses in their P&L. Instead, they reported 100% recovery of indirect costs in the supplemental cost schedule that each Center submits as part of its audited financials.

The full cost accounting methodology proposed is reasonable. However, only the market can dictate what donors will and will not pay for in terms of overhead rates. If IRRI attempts to bill donors at an overhead rate of 21% and other competitors are billing at a rate of only 15%, then there will be problems with donors. The full cost accounting system is useful in identifying the total cost of a project and should also assist in the management of fixed costs. However, calculating ratios and reporting them in the financial documents differs greatly from actually collecting full overheads from donor contracts.
## Table 15.2.8: Statement of Activities Data for Each of the CGIAR Affiliated Centers, 2007, US $ millions

<table>
<thead>
<tr>
<th>(US$ 000's)</th>
<th>CIMMYT</th>
<th>CIP</th>
<th>Africa Rice</th>
<th>ILRI</th>
<th>IRRRI</th>
<th>CIAT</th>
<th>IITA</th>
<th>ICRI SAT</th>
<th>ICARDA</th>
<th>World Agroforestry 2006</th>
<th>WorldFish 2006</th>
<th>CIFOR 2006</th>
<th>Bioversity Int'l</th>
<th>IFPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$43,707</td>
<td>$23,109</td>
<td>$10,684</td>
<td>$38,544</td>
<td>$33,687</td>
<td>$45,952</td>
<td>$47,443</td>
<td>$42,131</td>
<td>$28,619</td>
<td>$31,474</td>
<td>$23,668</td>
<td>$15,222</td>
<td>$16,196</td>
<td>$38,244</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Related</td>
<td>$34,899</td>
<td>$19,804</td>
<td>$7,815</td>
<td>$31,937</td>
<td>$38,066</td>
<td>$43,385</td>
<td>$31,170</td>
<td>$28,853</td>
<td>$23,171</td>
<td>$20,161</td>
<td>$14,238</td>
<td>$13,927</td>
<td>$17,050</td>
<td>$39,136</td>
</tr>
<tr>
<td>Management &amp; General</td>
<td>$6,717</td>
<td>$4,380</td>
<td>$3,654</td>
<td>$6,203</td>
<td>$8,321</td>
<td>$4,825</td>
<td>$4,791</td>
<td>$2,698</td>
<td>$4,716</td>
<td>$2,812</td>
<td>$7,408</td>
<td>$6,529</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>$28</td>
<td>$1,291</td>
<td>$268</td>
<td>$-</td>
<td>$-</td>
<td>$48</td>
<td>$1,071</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$271</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recovery of Indirect Costs</td>
<td>* ($1,142)</td>
<td>($951)</td>
<td>($1,760)</td>
<td>($3,707)</td>
<td>($4,221)</td>
<td>($1,892)</td>
<td>($1,113)</td>
<td>($2,313)</td>
<td>($1,376)</td>
<td>($1,085)</td>
<td>($527)</td>
<td>($2,611)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$41,644</td>
<td>$23,042</td>
<td>$10,518</td>
<td>$40,144</td>
<td>$41,487</td>
<td>$45,367</td>
<td>$37,590</td>
<td>$26,931</td>
<td>$32,327</td>
<td>$23,586</td>
<td>$15,540</td>
<td>$16,523</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Surplus/(Deficit) from Operations</td>
<td>$2,063</td>
<td>$67</td>
<td>$166</td>
<td>($1,600)</td>
<td>($3,897)</td>
<td>$4,465</td>
<td>$2,076</td>
<td>$4,532</td>
<td>$1,688</td>
<td>($853)</td>
<td>$112</td>
<td>($318)</td>
<td>($325)</td>
<td>$1,719</td>
</tr>
</tbody>
</table>

*CIMMYT and IFPRI reported 100% recovery of indirect costs in the amounts of $6,745(CIMMYT) and $5,899(IFPRI). Both Centers reported expenses in their Statement of Activities without adjustments for recovery of costs.

As mentioned earlier, Center’s report indirect and direct cost ratios each year as part of a supplemental schedule in their audited financial reports. The methodology for calculating the ratios is standardized and defined by the Secretariat. For example, amounts for unusual one-time charges would be excluded from the calculation because the general idea is to provide a proxy for ongoing direct and indirect costs. For this reason, the supplemental schedule will not always tie directly with the direct and indirect expenses on the Center’s current year Statement of Activities (although the numbers are equal or close in most cases).
Table 15.2.9: 2007 Direct and Indirect Cost Ratios as Reported by Centers in Audited Financial Reports

<table>
<thead>
<tr>
<th>(US$ 000's)</th>
<th>CIMMYT</th>
<th>CIP</th>
<th>Africa Rice</th>
<th>ILRI</th>
<th>IRRI</th>
<th>CIAT</th>
<th>IITA</th>
<th>ICRISAT</th>
<th>ICARDA</th>
<th>World Agroforestry</th>
<th>IWM</th>
<th>WorldFish</th>
<th>CIFOR</th>
<th>Bioversity Int'l</th>
<th>IFPRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect Costs</td>
<td>$6,717</td>
<td>$2,226</td>
<td>$2,488</td>
<td>$1,963</td>
<td>$3,263</td>
<td>$3,157</td>
<td>$6,548</td>
<td>$6,425</td>
<td>$3,262</td>
<td>$4,101</td>
<td>$3,611</td>
<td>$1,872</td>
<td>$2,421</td>
<td>$4,975</td>
<td></td>
</tr>
<tr>
<td>Management &amp; General</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Sustenance Services</td>
<td>$711</td>
<td>$222</td>
<td>$1,784</td>
<td>$3,099</td>
<td>$3,765</td>
<td>$1,377</td>
<td>$680</td>
<td>$1,541</td>
<td>$1,314</td>
<td>$1,180</td>
<td>$999</td>
<td>$401</td>
<td>$937</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>$28</td>
<td>$(132)</td>
<td>$1,580</td>
<td>$-</td>
<td>$-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total Indirect Costs</td>
<td>$6,745</td>
<td>$2,937</td>
<td>$2,578</td>
<td>$5,227</td>
<td>$6,362</td>
<td>$6,922</td>
<td>$7,925</td>
<td>$7,105</td>
<td>$4,803</td>
<td>$5,415</td>
<td>$4,791</td>
<td>$2,871</td>
<td>$2,822</td>
<td>$5,912</td>
<td>$5,899</td>
</tr>
<tr>
<td>Direct Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>$29,117</td>
<td>$18,554</td>
<td>$5,780</td>
<td>$25,733</td>
<td>$27,708</td>
<td>$34,965</td>
<td>$38,303</td>
<td>$28,559</td>
<td>$19,451</td>
<td>$25,112</td>
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<td>$11,989</td>
<td>$13,386</td>
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</tr>
<tr>
<td>Research Support</td>
<td>$5,782</td>
<td>$2,170</td>
<td>$2,082</td>
<td>$5,929</td>
<td>$3,721</td>
<td>$1,698</td>
<td>$2,273</td>
<td>$2,254</td>
<td>$3,035</td>
<td>$1,419</td>
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<td>$1,766</td>
<td>$1,250</td>
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<tr>
<td>Operations</td>
<td>$1,521</td>
<td>$887</td>
<td>$1,460</td>
<td>$1,609</td>
<td>$1,087</td>
<td>$1,573</td>
<td>$755</td>
<td>$716</td>
<td>$2,891</td>
<td>$1,435</td>
<td>$310</td>
<td>$488</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: Overhead Recovery</td>
<td>-</td>
<td>$(818)</td>
<td>$(1,760)</td>
<td>$(1,667)</td>
<td>$(3,707)</td>
<td>$(4,221)</td>
<td>$(1,892)</td>
<td>$(1,113)</td>
<td>$(2,270)</td>
<td>$(1,376)</td>
<td>$(767)</td>
<td>$(896)</td>
<td>$(2,611)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Direct Costs</td>
<td>$34,899</td>
<td>$22,245</td>
<td>$7,941</td>
<td>$29,902</td>
<td>$31,222</td>
<td>$34,565</td>
<td>$37,442</td>
<td>$30,494</td>
<td>$22,128</td>
<td>$24,976</td>
<td>$18,785</td>
<td>$14,422</td>
<td>$14,056</td>
<td>$30,613</td>
<td>$38,012</td>
</tr>
<tr>
<td>Total Direct and Indirect Costs</td>
<td>$41,644</td>
<td>$23,182</td>
<td>$10,519</td>
<td>$35,129</td>
<td>$37,584</td>
<td>$41,487</td>
<td>$45,367</td>
<td>$37,599</td>
<td>$26,931</td>
<td>$30,391</td>
<td>$23,576</td>
<td>$17,293</td>
<td>$16,878</td>
<td>$36,525</td>
<td>$43,911</td>
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<td>Cost Ratios</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect Costs/Total Costs</td>
<td>16.20%</td>
<td>12.00%</td>
<td>24.7%</td>
<td>14.88%</td>
<td>16.93%</td>
<td>16.68%</td>
<td>17.47%</td>
<td>18.90%</td>
<td>17.83%</td>
<td>18.10%</td>
<td>20.32%</td>
<td>16.6%</td>
<td>17%</td>
<td>16.19%</td>
<td>13.43%</td>
</tr>
<tr>
<td>Indirect Costs/Direct Costs</td>
<td>19.33%</td>
<td>13.00%</td>
<td>32.7%</td>
<td>17.48%</td>
<td>20.38%</td>
<td>20.03%</td>
<td>21.17%</td>
<td>23.30%</td>
<td>21.71%</td>
<td>22.09%</td>
<td>25.50%</td>
<td>19.91%</td>
<td>20%</td>
<td>19.31%</td>
<td>15.52%</td>
</tr>
</tbody>
</table>
15.2.9 Indirect Costs and Unrestricted Funding

Most Centers’ indirect costs are in the range of 18% to 22% of total costs. This is roughly comparable with North American research institutions (universities, colleges and hospitals). Unfortunately Centers do not consistently recover their indirect costs of research. In some cases the gap may result from a failure of proposal control by Center management; and in some cases it is a result of donor practices and constraints.

If research is not fully paying its way then costs must be covered in some other way. In public research institutions, the gap may be covered by grants for teaching or by sustaining grants of various kinds. In the CGIAR-affiliated Centers, unrestricted grants have been the main source of funds available to cover shortfalls in coverage of indirect costs. Of course unrestricted grants have to cover other things as well – including a part of capital investments and, importantly, a Center’s self-defined research program.

It was outside of the scope of the Independent Panel’s terms of reference to undertake a study of the Centers’ cost structures. However, we examined briefly, the relative scale of indirect costs relative to unrestricted funding. On balance, it looks healthy.

For each Center, the Panel calculated total indirect costs as reported in Exhibit II of the 2006 financial reports. They then compared this total indirect cost number to the total unrestricted funding available to the respective Center. Table 15.1.4 reflects the Panel’s findings. In each case, in 2006, the Center had adequate unrestricted funding to cover all indirect expenses and more. At the low end, World Agroforestry had a level of unrestricted funding that covered at 1.57 times the level of indirect costs. At the high end, CIP’s unrestricted funding covered indirect costs 3.59 times.

Nevertheless, it is essential that Centers implement full costing of research projects, both as good resource allocation practice and to free up unrestricted funds for self-directed research.

Table 15.2.10: Coverage of Total Indirect Costs by Center using Unrestricted Funding Levels

<table>
<thead>
<tr>
<th>Centers</th>
<th>Unrestricted Funding 2006</th>
<th>Total Indirect Costs 2006</th>
<th>Ratio of Unrestricted Funding/Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP</td>
<td>$9,800</td>
<td>$2,729</td>
<td>3.59</td>
</tr>
<tr>
<td>IFPRI</td>
<td>$14,600</td>
<td>$4,658</td>
<td>3.13</td>
</tr>
<tr>
<td>ICARDA</td>
<td>$10,800</td>
<td>$3,646</td>
<td>2.96</td>
</tr>
<tr>
<td>Bioversity</td>
<td>$15,200</td>
<td>$5,400</td>
<td>2.81</td>
</tr>
<tr>
<td>WorldFish</td>
<td>$7,400</td>
<td>$2,698</td>
<td>2.74</td>
</tr>
<tr>
<td>CIFOR</td>
<td>$7,800</td>
<td>$2,862</td>
<td>2.73</td>
</tr>
<tr>
<td>Africa Rice</td>
<td>$6,300</td>
<td>$2,434</td>
<td>2.59</td>
</tr>
<tr>
<td>ILRI</td>
<td>$13,600</td>
<td>$5,456</td>
<td>2.49</td>
</tr>
</tbody>
</table>
Independent Review of the CGIAR System

<table>
<thead>
<tr>
<th>Centers</th>
<th>Unrestricted Funding 2006</th>
<th>Total Indirect Costs 2006</th>
<th>Ratio of Unrestricted Funding/Indirect Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRRI</td>
<td>$14,000</td>
<td>$5,826</td>
<td>2.40</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>$16,200</td>
<td>$7,058</td>
<td>2.30</td>
</tr>
<tr>
<td>IWMI</td>
<td>$8,800</td>
<td>$4,094</td>
<td>2.15</td>
</tr>
<tr>
<td>CIAT</td>
<td>$12,600</td>
<td>$6,497</td>
<td>1.94</td>
</tr>
<tr>
<td>ICRISAT</td>
<td>$12,100</td>
<td>$6,389</td>
<td>1.89</td>
</tr>
<tr>
<td>IITA</td>
<td>$13,100</td>
<td>$7,499</td>
<td>1.75</td>
</tr>
<tr>
<td>World Agroforestry</td>
<td>$9,200</td>
<td>$5,850</td>
<td>1.57</td>
</tr>
</tbody>
</table>


Figure 15.2.6: US$ Unrestricted Funding By Center Compared to Total Indirect Costs by Center


15.2.10 Summary Findings Related to Funding and Expenditures for CGIAR and Affiliated Centers

- The CGIAR is not growing in real terms. In fact, real funding has been static over the past five years, and purchasing power has been relatively flat in constant dollar terms for a decade. The nominal dollar increases give an illusion of growth.

- The decline in unrestricted funding, coupled with a significant increase in the number of small restricted project grants, places greater administrative demands on the Centers and reduces their financial flexibility. The proliferation of project grants of
less than $100,000 adds more costs per dollar funding due to the fixed nature of some of the administrative and reporting requirements per grant.

- In some Centers, indirect costs are not fully recovered for many research projects. The recovery rate varies significantly across Centers.

- All Centers have had sufficient levels of unrestricted funds up to and including 2007 to cover their full overhead (indirect costs). Whether they have had, in addition, a sufficient margin to give them appropriate flexibility in their research agendas is another matter.

- The current system of mobilizing funds for the Centers has inefficiencies that stem from full decentralization (funds flow can be envisaged as a matrix of 15 Centers and 64 member/donors). This creates a bias toward small, restricted, project-by-project grants (there is no option at this time for donors to pool funds to create a more strategic and performance-based allocation pattern).

### 15.3 Challenge Programs

In 2001, the CGIAR decided to incorporate a programmatic approach to research planning and funding to complement existing approaches. The result was the formulation of a set of Challenge Programs (CPs). A CP is intended to be a time-bound, independently-governed program of high-priority research that targets the CGIAR goals in relation to complex issues of overwhelming global and/or regional significance, and requires partnerships among a wide range of institutions in order to deliver its products. With respect to funding and financial management, CPs were expected to mobilize more stable and long-term financing.\(^9\)

In 2003, three CPs were approved for implementation: the Challenge Program on Water & Food (CPWF), the Generation Challenge Program (GCP), and the HarvestPlus Challenge Program (HPCP). In 2004, a fourth program, the Sub-Saharan Africa Challenge Program (SSACP)\(^10\), was introduced.

Challenge Programs were established as “virtual” organizations. As virtual entities, they are without fixed assets or long-term liabilities. Key operating functions—such as human resources, accounting, fund management, and legal services—are outsourced to the Centers or to FARA.\(^11\) Three of the Challenge Programs are currently managed by CGIAR Centers. The International Water Management Institute (IWMI) manages Water & Food, IFPRI and CIAT co-manage HarvestPlus, and CIMMYT manages the Generation CP. The only CP not managed by one of the CGIAR Centers is the SSACP, which is managed by FARA.
The managing Center(s) and FARA play vital roles in the operational management and implementation of their respective programs. The Centers represent the CP legally, manage funding, take responsibility for financial reporting, and negotiate on behalf of the consortium. As such, the respective Center Boards carry ultimate legal and fiduciary responsibility and accountability for the CP.13

The following sections provide an overview of funding for the Challenge Programs and address problems related to financial management and reporting.

15.3.1 Challenge Program Funding Reached $68 Million in 2007

Between 2003 and 2007, donors invested $195.4 million in the four Challenge Programs. Please note that the $195.4 million represents “funds available” or cash received as reported by the CGIAR in Annual Financial Reports (not CP expenditures) The funding by program has been somewhat uneven from year to year, and a decline in 2006 is attributable, in part, to a delay of European Commission (EC) funding, which was corrected in 2007. This partly explains why there is a major increase in 2007, as the EC funding is essentially double for that year.

Table 15.3.1: Challenge Program Funding 2003-2007

<table>
<thead>
<tr>
<th>Funds Available - US$ Millions</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>HarvestPlus</td>
<td>10.1</td>
<td>3.9</td>
<td>15.5</td>
<td>12.1</td>
<td>19.6</td>
<td>61.2</td>
<td>31.2%</td>
</tr>
<tr>
<td>Water &amp; Food</td>
<td>6.8</td>
<td>9.4</td>
<td>9.3</td>
<td>8.4</td>
<td>17.1</td>
<td>51.0</td>
<td>26.1%</td>
</tr>
<tr>
<td>Generation</td>
<td>1.0</td>
<td>19.1</td>
<td>13.6</td>
<td>9.5</td>
<td>23.5</td>
<td>66.7</td>
<td>34.1%</td>
</tr>
<tr>
<td>SSA</td>
<td>0.5</td>
<td>4.7</td>
<td>-</td>
<td>3.5</td>
<td>7.8</td>
<td>16.6</td>
<td>8.5%</td>
</tr>
<tr>
<td>Unallocated</td>
<td>0.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18.6</td>
<td>37.1</td>
<td>38.4</td>
<td>33.5</td>
<td>68.0</td>
<td>195.4</td>
<td>100.0%</td>
</tr>
</tbody>
</table>


Growth in funding has been healthy but unevenly distributed across programs. The Generation CP has received the largest portion of funds due, in part, to a major EC donation. HarvestPlus, the second largest CP, has benefited from major donations from the Bill & Melinda Gates Foundation. The largest donor to Water & Food is the UK, with $7.5 million in funding contributed thus far. (See Table 15.3.1

Overall, the UK is the largest Challenge Program donor to date, contributing $44.3 million through 2007. Other major donors include the Gates Foundation ($40.7 million), the European Commission ($37.3 million), and the World Bank ($36.2 million). The top four donors represent 81% of all funding through 2007. In all, 22 donors have funded the Challenge Programs—an impressive number, and a diverse group—though it should be noted that eight of the donors have contributed less than $500k to date. Table 15.3.2 shows funding by donor by year for the 2003-2007 period.

Chapter 15 Financial Management
Table 15.3.2: Funding by Donor, Challenge Programs 2003-2007

<table>
<thead>
<tr>
<th>Challenge Program Donors</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>8.5</td>
<td>10.4</td>
<td>7.8</td>
<td>17.6</td>
<td>44.3</td>
<td>22.7%</td>
<td></td>
</tr>
<tr>
<td>Bill &amp; Melinda Gates Foundation</td>
<td>7.0</td>
<td>8.8</td>
<td>7.0</td>
<td>17.6</td>
<td>40.7</td>
<td>20.8%</td>
<td></td>
</tr>
<tr>
<td>European Commission</td>
<td>12.1</td>
<td>5.7</td>
<td>0.9</td>
<td>18.6</td>
<td>37.3</td>
<td>19.1%</td>
<td></td>
</tr>
<tr>
<td>World Bank</td>
<td>6.9</td>
<td>8.1</td>
<td>6.5</td>
<td>8.2</td>
<td>36.2</td>
<td>18.5%</td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>1.8</td>
<td>2.2</td>
<td>0.3</td>
<td>1.2</td>
<td>7.3</td>
<td>3.7%</td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>0.1</td>
<td>2.4</td>
<td>1.8</td>
<td>1.9</td>
<td>6.2</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.0</td>
<td>1.0</td>
<td>1.9</td>
<td>1.6</td>
<td>5.5</td>
<td>2.8%</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>2.7</td>
<td>2.1</td>
<td>0.3</td>
<td>4.8</td>
<td>2.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>0.5</td>
<td>1.3</td>
<td>0.7</td>
<td>0.7</td>
<td>3.2</td>
<td>1.6%</td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td>0.9</td>
<td>1.0</td>
<td>0.4</td>
<td>0.6</td>
<td>2.6</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td>Rockefeller Foundation</td>
<td>0.8</td>
<td>1.0</td>
<td>0.3</td>
<td>2.1</td>
<td>1.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>1.8</td>
<td>0.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>0.1</td>
<td>0.1</td>
<td>0.6</td>
<td>0.2</td>
<td>1.3</td>
<td>0.7%</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>0.4</td>
<td>0.4</td>
<td>0.8</td>
<td>0.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADB</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.4</td>
<td>0.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFAD</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
<td>0.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>InternationalLifeSciences Institute</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pioneer</td>
<td>0.1</td>
<td>0.0</td>
<td>0.02</td>
<td>0.02</td>
<td>0.2</td>
<td>0.1%</td>
<td></td>
</tr>
<tr>
<td>Watermet</td>
<td>0.1</td>
<td>0.05</td>
<td>0.2</td>
<td>0.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>0.1</td>
<td>0.3</td>
<td>0.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syngenta Foundation</td>
<td>0.0</td>
<td>0.3</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kirk House</td>
<td>0.02</td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18.4</td>
<td>37.2</td>
<td>38.5</td>
<td>33.5</td>
<td>68.0</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>


It is important to note that the funding totals in this section are based on the “Funds Available” information included in the 2003-2007 Financial Reports of the CGIAR. These annual totals are not the same as revenues or funding included in a summary schedule of annual results (a schedule that appears at the beginning of each year’s financial report and includes total Challenge Program funding and expenses for Centers and Partners). That said, the data source was selected because it is the only funding schedule available that aggregates the four CPs for the period.

15.3.2 Funding for HarvestPlus, Generation, and Water & Food has Increased Significantly Since Inception

The Generation Challenge Program is at present the largest of the four CPs. Funding comes from a diverse group of donors, with the EC and UK/DFID providing the largest source of funding—72% of the total to date. The World Bank contributed $11.8 million,
the Gates Foundation $3.6 million, and the Rockefeller Foundation $2.3 million. Total donor funding is provided in Table 15.3.3.

Table 15.3.3: Funding by Donor, Challenge Programs 2003-2007

<table>
<thead>
<tr>
<th>Donors to Generation Challenge Program</th>
<th>2003-2007 Total Funding</th>
<th>As % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>29.5</td>
<td>43.8%</td>
</tr>
<tr>
<td>DFID/UK</td>
<td>18.9</td>
<td>28.1%</td>
</tr>
<tr>
<td>World Bank</td>
<td>11.8</td>
<td>17.5%</td>
</tr>
<tr>
<td>Gates Foundation</td>
<td>3.6</td>
<td>5.3%</td>
</tr>
<tr>
<td>Rockefeller Foundation</td>
<td>2.3</td>
<td>3.4%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>.7</td>
<td>1.0%</td>
</tr>
<tr>
<td>Sweden/SIDA</td>
<td>.5</td>
<td>.7%</td>
</tr>
<tr>
<td>Pioneer Fund</td>
<td>.1</td>
<td>.2%</td>
</tr>
<tr>
<td>Austria</td>
<td>.1</td>
<td>.1%</td>
</tr>
<tr>
<td>Syngenta</td>
<td>.1</td>
<td>.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>67</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Note: Total funding in this table differs slightly from the details reported as Funds Available in the CGIAR Annual Reports, but it is not possible to determine if the variance is simply due to rounding ($67.28 million reported in the External Review documents vs. $66.8 million reported by CGIAR Financial Reports, a difference of $.48 million).

The HarvestPlus Challenge Program is the second largest CP, with $61.4 million in donor funding contributed through 2007. The Gates Foundation is, by far, the largest donor, contributing $37.2 million, or 60.6% of total funding. A discussion concerning the financial risk of a single large donor supporting an individual CP was included in the January 2008 External Review of the program; however, the Independent Review Panel does not find documentation indicating that any problems have arisen attributable to the large level of support from an individual donor. See HarvestPlus donor funding details below in Table 15.3.4.

Table 15.3.4: HarvestPlus CP Funding by Donor, 2003-2007

<table>
<thead>
<tr>
<th>Donors to HarvestPlus Challenge Program (HPCP)</th>
<th>2003-2007 Total Funding</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill &amp; Melinda Gates Foundation</td>
<td>37.2</td>
<td>60.6%</td>
</tr>
<tr>
<td>World Bank</td>
<td>11.5</td>
<td>18.7%</td>
</tr>
<tr>
<td>USA</td>
<td>6.1</td>
<td>9.9%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>3.9</td>
<td>6.4%</td>
</tr>
<tr>
<td>Denmark</td>
<td>1.5</td>
<td>2.4%</td>
</tr>
<tr>
<td>Sweden</td>
<td>.5</td>
<td>.8%</td>
</tr>
<tr>
<td>ADB</td>
<td>.4</td>
<td>.7%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>.2</td>
<td>.3%</td>
</tr>
<tr>
<td>Austria</td>
<td>.1</td>
<td>.1%</td>
</tr>
</tbody>
</table>
The Challenge Program on Water & Food (CPWF) received $51 million in funding through 2007, with the largest portion from the UK, representing 32%, or $16.4 million, of the total.

Table 15.3.5: Challenge Program on Water & Food, Funding by Donor, 2003-2007

<table>
<thead>
<tr>
<th>Challenge Program on Water &amp; Food – US$ Millions</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK/DIFID</td>
<td>2.30</td>
<td>4.60</td>
<td>2.00</td>
<td>7.50</td>
<td>16.40</td>
<td>32.1%</td>
<td></td>
</tr>
<tr>
<td>World Bank</td>
<td>3.00</td>
<td>2.50</td>
<td>2.00</td>
<td>2.70</td>
<td>12.20</td>
<td>23.9%</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>2.70</td>
<td>2.70</td>
<td>2.10</td>
<td>4.80</td>
<td>12.20</td>
<td>23.9%</td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.02</td>
<td>1.00</td>
<td>1.50</td>
<td>1.20</td>
<td>4.72</td>
<td>9.2%</td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>1.83</td>
<td>0.70</td>
<td>0.30</td>
<td>1.80</td>
<td>4.63</td>
<td>9.1%</td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>3.90</td>
<td>3.90</td>
<td>3.90</td>
<td></td>
<td></td>
<td>7.6%</td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td>0.35</td>
<td>0.40</td>
<td>0.40</td>
<td>0.30</td>
<td>1.45</td>
<td>2.8%</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>0.50</td>
<td>0.40</td>
<td>0.30</td>
<td></td>
<td>1.20</td>
<td>2.4%</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>0.40</td>
<td>0.40</td>
<td>0.40</td>
<td></td>
<td>0.80</td>
<td>1.6%</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>0.11</td>
<td>0.20</td>
<td>0.10</td>
<td>0.41</td>
<td>0.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFAD</td>
<td>0.30</td>
<td>0.30</td>
<td>0.30</td>
<td>0.30</td>
<td>0.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waternet</td>
<td>0.10</td>
<td>0.05</td>
<td></td>
<td></td>
<td>0.15</td>
<td>0.3%</td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>0.10</td>
<td></td>
<td></td>
<td>0.10</td>
<td>0.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6.81</td>
<td>9.50</td>
<td>9.30</td>
<td>8.35</td>
<td>17.10</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

The funding totals and sources mobilized by the Challenge Programs are impressive. The Panel doubts, however, that this funding was all incremental. Representatives from the UK have indicated that the portion of their funding allocated to Challenge Programs would have otherwise gone to the Centers as unrestricted funding, for example. Similarly, participants in the EC funding process confirm that funds directed to the Challenge Programs would have gone to the Centers on an unrestricted with attribution basis. Also, it is clear that the World Bank funding of Challenge Programs is not incremental. Each year, the World Bank has allocated part of its annual $50 million from the Development Grants Facility to the CPs, resulting in decreases in the funding going to the Centers. Since Challenge Program funding is by definition “restricted”, the net result has been to increase the proportion of restricted funding to the System. Additional details analyzing the issue of whether or not the Challenge Program funding is incremental are included in other sections of this report.

The remaining discussions in this section address problems related to financial reporting and management of the Challenge Programs.
15.3.3 Problems with Challenge Program Financial Reporting

The Challenge Programs are large multi-partner joint ventures. Their administrative homes are in one of the CP partner operations (generally a Center), raising some question of conflicting management and oversight roles. Their governance is ad hoc. All these factors make financial control challenging. In the absence of independently audited financial statements for each Challenge Program, the Review Panel does not believe that it had sufficient information to conclude on the adequacy of financial control of the CPs.

However the Panel notes some apparent inconsistencies and inadequacies in the financial information available. First it is very difficult for even financial analysts to follow the CP financial reports in various formats and forums. Inconsistencies, small and larger, are frequent. These may be partially attributable to accounting methods used for restricted funds, but they may indicate other problems. The fact that CPs are ad hoc has resulted in a lack of clarity about financial roles and responsibilities across the three tiers of management and oversight (Centers, CPs, and CGIAR). Financial policies, including accounting methodologies, vary and are inconsistent across the three layers.

The following sections address each of the problems in more detail for the three CPs managed by CGIAR host Centers—Water & Food (IWMI), Generation (CIMMYT), and HarvestPlus (CIAT and IFPRI). A detailed financial analysis of the SSA Challenge Program is not included in this section: many of the issues addressed are directly related to the governance structure, and SSA is managed outside the CGIAR System.

The methodology followed in examining financial reporting included the review of internal audit reports for each of the Challenge Programs followed by discussions with the CGIAR Director of Internal Audit; a review of each of the Independent Reviews of the Challenge Programs followed by discussions with one of the authors; use of annual reports and MTPs for Challenge Programs from CP websites; review of host Centers’ annual audited financial reports, with special attention to the cash receipts and disbursement schedules; review of Annual Financial Reports of the CGIAR from 2002-2007; discussions with members of the CGIAR Secretariat Finance Staff during May, June, July, and August.

The problems uncovered in financial reporting were discussed with the CGIAR Secretariat in June and July and detailed information related to our findings and recommendations were provided to the Secretariat at that time. During July, the Secretariat supported the Panel’s recommendation that CPS should have independent annual audits of their financial statements.16 The Panel also believes that each CP should be subject to a full operations audit every three years, in addition to its annual financial audit, and in addition to periodic studies of the impact of the CP’s research.
15.3.4 Challenge Program Financial Data

At any given time, three (3) separate sources provide overlapping funding and expenditure information on the CPs. The major sources are: (1) the cash receipts and disbursements schedules reported by the host Center and appended to the annual financial reports of the respective Center; (2) the financial information published by the Challenge Program governance/management and posted on the CP website; and (3) the aggregated data reported by the CGIAR in annual financial reports. The problem is that there are major discrepancies in cash balances, accrued revenue and expenses across the three sources. This is due, in part, to a lack of a uniform policy in recognizing and reporting accrued revenues and expenses for restricted funding. Beyond that, the CPs are not required to generate audited financial statements at the program level and the CGIAR Secretariat has taken a position that audited financial statements are not required. The Panel finds that there is a strong need to develop financial statements at the program level and have them independently audited, annually.

CGIAR Financial Data

Since 2004, CGIAR aggregated financial reports have included a high-level summary of annual Challenge Program revenues and expenditures as shown in Table 15.3.6. Because CP funding is restricted, revenues are always equal to expenses according to accounting conventions for restricted funding. At first glance, it appears that available funding was $19 million, $35 million, $40 million and $48 million respectively in each year from 2004 to 2007. A quick glance at Table 15.3.6 would also give the impression that revenues were equal to expenditures in each year. However, a review of a second schedule that is also included in the same financial report reflects a much different funding perspective. Table 15.3.7 reflects data from the second schedule.

Table 15.3.6: Aggregated Financial Information Reported in the CGIAR Financial Reports

<table>
<thead>
<tr>
<th>Challenge Programs (US $ Millions)</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Funding (also referred to as revenue)</td>
<td>19</td>
<td>35</td>
<td>40</td>
<td>48</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>19</td>
<td>35</td>
<td>40</td>
<td>48</td>
</tr>
<tr>
<td>Surplus or Deficit</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Summary Table, CGIAR Financial Reports, 2004-2007

This second table (Table 15.3.7) reports funding on a cash receipts basis and reflects “Funds Available” for the same 2004-2007 period as $37.1 million, $38.4 million, $33.5 million, and $68.4 million. Both schedules are technically correct, according to how they calculate funding. The problem is that the higher funding amount is critical to understanding the financial condition of the programs, yet all other schedules reported in the CGIAR Financial Reports tie only to the lower funding level. Again, although the data
is not technically incorrect, the information as displayed is confusing and does not help in developing an accurate picture of the financial health of the Challenge Programs.

In order to demonstrate the difficulty in interpreting Challenge Program financial data as currently reported, this survey focused on a single year, 2007. The $48 million in funding reported in 2007 in Table 15.3.6, compared to funding of $68 million reported in Table 15.3.7 for the same year, differs by $20 million. However, Challenge Program funding as shown in Table 15.3.7 cannot simply be deducted from individual donor amounts tabulated in other parts of the report because, in the end, there is a discrepancy of $20 million—and there is no easy way to reconcile the difference.

**Table 15.3.7: Funds Available and Expenditures as Reported in CGIAR Financial Reports, 2004-2007**

<table>
<thead>
<tr>
<th>Funds Available(millions US$)</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Funds Available</td>
<td>37.1</td>
<td>38.4</td>
<td>33.5</td>
<td>68.0</td>
<td>177.0</td>
</tr>
</tbody>
</table>

Note: Since the purpose of this schedule is to compare funding to amounts reported in Table 15.1.6, the 2003 data has been omitted for comparison purposes.

Another confusing aspect of the Funds Available schedule is that it combines cash basis funding with accrual basis expenses and calculates a balance. This information is summarized in Table 15.3.8. The mixing of cash receipts with accrued expenditures creates a hybrid balance that reports little about the actual financial condition of the programs, and contradicts the view shown in the beginning of the report whereby revenues and expenses for Challenge Programs are equal. Mixing cash flow and accrual based financial data is also not consistent with best practices. A more accurate way to display the financial performance of the CPs would be to prepare cash receipt and disbursement schedules and then, separately, prepare revenues and expenditures for each of the programs on an accrual basis. This would also be more in line with generally accepted accounting principles for reporting revenues and expenses.

**Table 15.3.8: 2003-2004 CGIAR Financial Reports, CP Program Funds Available including Expenditures**

<table>
<thead>
<tr>
<th>Funds Available &amp; Expenditures (millions US$)</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Funds Available</td>
<td>18.64</td>
<td>37.1</td>
<td>38.4</td>
<td>33.5</td>
<td>68.0</td>
<td>195.64</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>7.81</td>
<td>19.6</td>
<td>34.9</td>
<td>39.7</td>
<td>47.7</td>
<td>149.71</td>
</tr>
<tr>
<td>Current Year Balance</td>
<td>10.83</td>
<td>17.5</td>
<td>3.5</td>
<td>-6.2</td>
<td>20.3</td>
<td>45.93</td>
</tr>
<tr>
<td>Cumulative Balance</td>
<td>10.83</td>
<td>28.33</td>
<td>31.83</td>
<td>25.63</td>
<td>45.93</td>
<td>na</td>
</tr>
</tbody>
</table>

Individual Challenge Program Financials

In an effort to obtain detailed financial information for each of the Challenge Programs, the Review Panel reviewed reports published by the individual CPs, such as Medium Term Plans and Annual Reports. Most of this information is available on the respective Challenge Program websites. Again, the Panel found discrepancies in the data distributed by the CPs, the CGIAR, and in some cases, the Centers—and the Panel’s findings confirm that there are major deficiencies in how financial data is reported for the CPs. Details are provided in the following sections.

Challenge Program on Water & Food

The CP on Water & Food posted its Annual Report for 2007, which included a statement of income and expenses from 2002 to 2008. The 2002-2006 data was marked as audited and the 2007-2008 data was marked as estimated. The Review Panel compared the income and expenses from this source to the information reported in the aggregated financial reports of the CGIAR and found major discrepancies. Although they did not expect actual income to tie to “funds available” balances (because one is accrual and the other cash), there was an assumption that expenditures, because both sources are believed to be on an accrual basis, would be consistent. This was not the case. Below is a comparison of the income and expenses reported by both sources.

Table 15.3.9: Challenge Program on Water & Food Annual Report, 2007 Compared to CGIAR Financial Reports

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>200</td>
<td>6,165</td>
<td>10,129</td>
<td>9,090</td>
<td>10,256</td>
<td>17,922</td>
<td>53,762</td>
</tr>
<tr>
<td>Expenditures</td>
<td>632</td>
<td>4,955</td>
<td>3,777</td>
<td>9,647</td>
<td>13,370</td>
<td>21,373</td>
<td>53,754</td>
</tr>
<tr>
<td>Surplus (Deficit)</td>
<td>(432)</td>
<td>1,210</td>
<td>6,352</td>
<td>(557)</td>
<td>(3,114)</td>
<td>(3,451)</td>
<td>8</td>
</tr>
<tr>
<td>Reported in CGIAR Annual Financial Reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funds Available</td>
<td>6,800</td>
<td>9,400</td>
<td>9,300</td>
<td>8,400</td>
<td>17,100</td>
<td>51,000</td>
<td></td>
</tr>
<tr>
<td>Expenditures</td>
<td>4,980</td>
<td>5,800</td>
<td>10,500</td>
<td>10,500</td>
<td>14,800</td>
<td>46,580</td>
<td></td>
</tr>
<tr>
<td>Surplus (Deficit)</td>
<td>n/a</td>
<td>1,820</td>
<td>3,600</td>
<td>(1,200)</td>
<td>(2,100)</td>
<td>2,300</td>
<td>4,420</td>
</tr>
<tr>
<td>Variance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>(635)</td>
<td>729</td>
<td>(210)</td>
<td>1,856</td>
<td>822</td>
<td>2,562</td>
<td></td>
</tr>
<tr>
<td>Expenditures</td>
<td>(25)</td>
<td>(2,023)</td>
<td>(853)</td>
<td>2,870</td>
<td>6,573</td>
<td>6,542</td>
<td></td>
</tr>
<tr>
<td>Surplus (Deficit)</td>
<td>n/a</td>
<td>(610)</td>
<td>2,752</td>
<td>643</td>
<td>(1,014)</td>
<td>(5,751)</td>
<td>(3,980)</td>
</tr>
</tbody>
</table>


A number of observations are worth noting about this information. First, annual expenditures differ in each year between the two sources, with a cumulative variance of
$6.5 million overall. This is despite the fact that both sources are believed to be reporting on an accrual basis (as confirmed in the actual annual report and discussions with the CGIAR finance staff). Secondly, the cumulative surplus balance of $4.4 million reported by CGIAR is effectively nonexistent as indicated by the CPWF Annual Report. This is a major difference in activity for the size of the program. Thirdly, the Panel now has a trio of funding numbers. Using 2006 final numbers, the choices are:

- Add up all the revenue reported by each Center in its respective Annual Financial Reports and try to find a partner revenue number, coming up with a total funding number for Water & Food in 2006 of $10.5 million.
- Use the Funds Available number in the detailed schedule reported by the CGIAR. This reflects $8.4 million.
- Use the Challenge Program’s own Annual Report information as published on its website. This reflects $10.2 million

As shown in Table 15.3.9, there are also discrepancies in the expenses reported.

It is hoped that the problems are limited to reporting, but the discrepancies could indicate more serious issues related to management of the accounts and an inability to ascertain accurate balances. A footnote to the 2007 Annual Report of the WFCP was not reassuring regarding accounts management: it noted that, “due to delays in reports from the chain of CPWF project partners, disbursements to projects exceed the audited figures presented for 2004-2006; the sums actually retained by IWMI and other managing centers were therefore less than the amounts of several million dollars shown as ‘carried forward.’” Other than this footnote, there is no additional information about restated funding contained in the report.

**Generation Challenge Program (GCP) Reporting**

With respect to financial reporting, the GCP reflects problems similar to the other CPs. First and foremost, the CIMMYT financial reports and the GCP Annual Reports use different accounting conventions to report revenue. In the case of CIMMYT, recognition of CP revenues is tied to the recognition of expenses, and they are always equal. In the case of the GCP annual reports, income is recognized differently and the CP shows annual surpluses and deficits that cannot be tied back to individual Center performance. This is confusing and misleading, again addressing the issue that there should not be different versions of published financial reports for the same CP.

A second problem is that the expenses in aggregated financial reports of the CGIAR will also not tie to the aggregated program data issued by the GCP in Annual Reports. Although 2007 numbers were reported as estimates, 2005 expenses were actual; a major variance of $3.5 million in expenses for the year was reflected across the two sources. The root of this problem, again, relates to the lack of accounting conventions and coordination of financial information across the various layers of management.
On a more positive note, the cash receipts reported by CIMMYT for 2007 of $23.97 million were close to the Funds Available balance reported of $23.5; nonetheless, a $.47 million variance is probably more than simple rounding.

### Table 15.3.10: Variances in GCP Financial Data Reported

<table>
<thead>
<tr>
<th>Generation Challenge Program as Reported in GCP Annual Reports (US $000’s)</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007E</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>3,161</td>
<td>10,965</td>
<td>14,193</td>
<td>15,518</td>
<td>12,831</td>
<td>56,668</td>
</tr>
<tr>
<td>Expenditures</td>
<td>6,873</td>
<td>14,712</td>
<td>12,524</td>
<td>14,486</td>
<td>48,595</td>
<td></td>
</tr>
<tr>
<td>Capital</td>
<td>33</td>
<td>23</td>
<td>20</td>
<td>20</td>
<td>96</td>
<td></td>
</tr>
<tr>
<td>Reserve &amp; Indirect Costs</td>
<td>500</td>
<td>500</td>
<td>824</td>
<td>487</td>
<td>711</td>
<td>3,022</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>500</td>
<td>7,406</td>
<td>15,559</td>
<td>13,031</td>
<td>15,217</td>
<td>51,713</td>
</tr>
<tr>
<td>Surplus (Deficit)</td>
<td>2,661</td>
<td>3,559</td>
<td>(1,366)</td>
<td>2,487</td>
<td>(2,386)</td>
<td>4,955</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reported in CGIAR Annual Financial Reports for GCP</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Available</td>
<td>950</td>
<td>19,100</td>
<td>13,600</td>
<td>9,500</td>
<td>23,500</td>
<td>66,650</td>
</tr>
<tr>
<td>Expenditures</td>
<td>810</td>
<td>6,500</td>
<td>12,100</td>
<td>14,600</td>
<td>16,000</td>
<td>50,010</td>
</tr>
<tr>
<td>Balance</td>
<td>140</td>
<td>12,600</td>
<td>1,500</td>
<td>(5,100)</td>
<td>7,500</td>
<td>16,640</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variances</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>2,211</td>
<td>(8,135)</td>
<td>593</td>
<td>6,018</td>
<td>(10,669)</td>
<td>(9,982)</td>
</tr>
<tr>
<td>Expenditures</td>
<td>(310)</td>
<td>906</td>
<td>3,459</td>
<td>(1,569)</td>
<td>(783)</td>
<td>1,703</td>
</tr>
<tr>
<td>Surplus (Deficit)</td>
<td>2,521</td>
<td>(9,041)</td>
<td>(2,866)</td>
<td>7,587</td>
<td>(9,886)</td>
<td>(11,685)</td>
</tr>
</tbody>
</table>


Note: 2004 income reported in GCP Annual Report included $2,660 from prior year which was excluded from this table.

A final note on the information reported in the GCP Annual Report: the Panel noticed that the preparer of the 2004 annual income statement added the prior year surplus balance to current year income. This effectively double-counts income and is not consistent with conventional accounting rules.

### HarvestPlus Challenge Program (HPCP) Reporting

The External Review of the HarvestPlus Program gave the HPCP management team, as well as co-hosts CIAT and IFPRI, high marks for its effective oversight and management of a successful program. It is important to note that the focus of the External Review was more an evaluation of the program and its effectiveness as opposed to a financial audit or analysis. Although the financial health of the HPCP looks good, the published financial data in both the HarvestPlus Medium Term Plan: 2008-2010 and the External Review have issues similar to the other CPs in that the information differs from the CGIAR aggregated...
Financial Reports. Again, the use of different accounting methods creates a situation whereby published financial documents issued by the CGIAR Secretariat and those published by the CP Management Team differ. Please note that the Panel is addressing financial data that should be similar. Specifically, cash receipts and cash balances for a particular year should be the same across sources. They are not. Actual revenue and expenses for 2003-2006, both on an accrual basis should be consistent across sources. They are not.

Details related to the variances in reported financial information are reflected in Table 15.3.11. Data for 2003 to 2004 is not comparable, so no variances are calculated. Also, the information for 2007 contained in the Medium Term Plan is only an estimate, so a variance is not meaningful. The variance between “Donor Funding” and “Funds Available” is provided in order to show the only aggregated information available in the CGIAR Financial Reports compared to the financial information reported by the CP Management Staff. They present a very different financial picture of the CP and a donor looking at the CGIAR aggregates might think that the CP has significant excess funding when, in fact, this is not the case (there is excess cash but committed to projects where expenses have not been incurred). With respect to expenses, it is still unclear why they vary widely between the two sources, assuming both sets of data are derived from actual accrued expenditures provided by the host Center.

Table 15.3.11: HarvestPlus Challenge Program Financial Information as Reported in External Review vs. CGIAR Annual Financial Reports

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor Funding</td>
<td>11,800</td>
<td>11,100</td>
<td>14,800</td>
<td>13,400</td>
<td>51,100</td>
</tr>
<tr>
<td>Expenditures</td>
<td>11,241</td>
<td>11,204</td>
<td>15,452</td>
<td>14,045</td>
<td>51,942</td>
</tr>
<tr>
<td>Surplus (Deficit)</td>
<td>559</td>
<td>(104)</td>
<td>(652)</td>
<td>(645)</td>
<td>(842)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Available</td>
<td>10,050</td>
<td>3,900</td>
<td>15,500</td>
<td>12,100</td>
<td>19,600</td>
<td>61,150</td>
</tr>
<tr>
<td>Expenditures</td>
<td>2,020</td>
<td>6,900</td>
<td>9,900</td>
<td>11,600</td>
<td>14,100</td>
<td>44,520</td>
</tr>
<tr>
<td>Balance</td>
<td>n/a</td>
<td>8,030</td>
<td>(3,000)</td>
<td>5,600</td>
<td>500</td>
<td>5,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variance</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td>(4,400)</td>
<td>2,700</td>
<td>(10,050)</td>
</tr>
<tr>
<td>Expenditures</td>
<td></td>
<td></td>
<td>1,304</td>
<td>3,852</td>
<td>7,422</td>
</tr>
<tr>
<td>Surplus (Deficit)</td>
<td></td>
<td></td>
<td>(5,704)</td>
<td>(1,152)</td>
<td>(17,472)</td>
</tr>
</tbody>
</table>

Source: Actual donor funding and actual expenditures are reported in the First External Review of the HPCP and further sourced within that document as being based on the HarvestPlus Strategic Plan 2008-2012.
HPCP is an interesting situation since the Panel used financial data from the HarvestPlus External Review that was reportedly (in the review) sourced from the HP Strategic Plan 2008-2012. However, the HPCP website has a Medium-Term Plan: 2008-2010 posted with a date of June 2007 that reflects different “Revenues by Donor” for 2003/2004 ($11,920), 2005($11,265), and 2006 ($15,280). As you can see from Table 15.3.12 each of the years differ from the “Donor Funding” in Table 15.3.11 of $11,800, $11,100, $14,800 for the same period. Assuming both sources are on an accrual basis, it is not the norm to have different revenues and expenses that go back several years to the 2003-2006 period.

**Table 15.3.12: HarvestPlus Challenge Program as Reported in Medium Term Plan vs. CGIAR Annual Financial Reports**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HPCP Medium Term Plan: 2008-2010</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donor Revenue</td>
<td>11,920</td>
<td>11,265</td>
<td>15,280</td>
<td>13,862</td>
<td>52,327</td>
</tr>
<tr>
<td><strong>HPCP External Review(Sourced from Strategic Plan 2008-2012)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donor Funding</td>
<td>11,800</td>
<td>11,100</td>
<td>14,800</td>
<td>13,400</td>
<td>51,100</td>
</tr>
<tr>
<td>Surplus (Deficit)</td>
<td>120</td>
<td>165</td>
<td>480</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

Source: HPCP External Review (original source noted as HPCP Strategic Plan 2008-2012; Harvest Plus Challenge Program Medium Term Plan: 2008-2010 as posted on CGIAR.org website

A final discrepancy noted with the HPCP are the variances between two sources that are reportedly prepared on a cash basis, the “Funds Available” in the CGIAR Annual Financials and the “Cash Receipts” schedule in the CIAT audited Financial Report for 2007. CGIAR reports 2007 funds available of $19.6 million. The CIAT schedule reports HPCP cash receipts of $21.75 million for 2007, a variance of $2.1 million for the year.

In summary, the Panel finds that if a donor or stakeholder checks the CGIAR website (including the links to CPs and External Reviews), to access financial data for the CPs, he or she will find at least three published sources reporting different revenue (both accrual), cash (both cash), or expense (both accrual) numbers for the 2003-2006 period. (Note: 2007 was not finalized in two of the three sources so no comparison has been made).

The Panel believes this is a serious problem and recommends that immediate steps be taken to prepare accurate, thorough, and final financial reports for each of the CPs for each of the operating years. A financial audit of the each CP should follow after the statements have been created.

**15.3.5 Financial Roles, Responsibilities and Policies are Unclear**

External Reviews (ERs) as well as Internal Audits (IAs) for each of the Challenge Programs have been conducted. Both ERs and IAs identified the lack of clearly defined financial roles, responsibilities, and policies as weaknesses of the CPs. Such weaknesses stem, in
part, from the complex governance structure that has been put in place. Specifically, problems related to financial management include:

- Lack of clarity as to which roles, responsibilities, and authorities have been transferred from Center Boards to CP governance committees such as the PSC of GCP.

- Conflict of interest resulting from Centers’ participation in decisions from which the Center could derive financial benefit.

- Lack of clearly defined financial policies for the CPs, including the determination of management fees, recognition of interest income on cash balances, allocation of indirect costs to CPs, and co-mingling of CP accounts and transactions with those of the host Center.

To date, each of the CPs has made progress in addressing issues identified in its respective audits. The Panel finds that standardized practices and procedures across all CPs would have been more in line with best practices for managing complex accounting and financial arrangements. The Panel also finds that the current practice of establishing separate governance structures for each CP to be highly inefficient. Furthermore, Panel notes that the establishment of a separate governance structure for each CP is not scaleable under a scenario where there may be as many as 15 to 20 CPs System-wide.

### 15.3.6 World Bank Allocations Reported as Unrestricted

This issue is related to how the CGIAR Secretariat categorizes its Challenge Program funding. Reporting and identifying this inconsistency does not imply that the reported values are inaccurate. In relative terms, this particular item is far less serious than the earlier problems mentioned.

Certain major donors like DFID and the EC provide funding to the CGIAR on an unrestricted basis or an unrestricted-with-attribution basis. Their support of any Challenge Programs, however, is reported as restricted in the aggregated financial reports of the CGIAR. At the same time, the World Bank funding, although allocated in part to the Challenge Programs, remains unrestricted for reporting purposes. Donors are unhappy with this apparent inconsistency, one that gives the World Bank credit for unrestricted funding while all other donors supporting the Challenge Programs have their contributions reclassified as restricted.

Table 15.3.13 lists Challenge Program donors along with a breakout of funding between restricted and unrestricted as reported by the CGIAR Financial Reports in 2007. In the future, the Panel recommends that the World Bank funding for Challenge Programs be classified as restricted, in order to be consistent with other donors.
Table 15.3.13: Challenge Program Donors in 2007

<table>
<thead>
<tr>
<th>Total Funding from 15 donors that also contributed to CPs</th>
<th>Unrestricted</th>
<th>Restricted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Commission</td>
<td>62.4 (18.6)</td>
<td>62.4</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>2.4 (.6)</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>6.1</td>
<td>7.8 (1.8)</td>
<td>13.9</td>
</tr>
<tr>
<td>Norway</td>
<td>13.3</td>
<td>1.2 (.3)</td>
<td>14.6</td>
</tr>
<tr>
<td>Sweden</td>
<td>8.4</td>
<td>5.2 (.3)</td>
<td>13.6</td>
</tr>
<tr>
<td>Switzerland</td>
<td>7.8</td>
<td>9.9 (1.6)</td>
<td>17.7</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>23.3</td>
<td>21.3 (17.6)</td>
<td>44.6</td>
</tr>
<tr>
<td>United States</td>
<td>19.9</td>
<td>39.6 (1.9)</td>
<td>59.5</td>
</tr>
<tr>
<td>Rockefeller Foundation</td>
<td>5.0 (.3)</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Syngenta Foundation</td>
<td>.6 (.03)</td>
<td>.6</td>
<td></td>
</tr>
<tr>
<td>ADB</td>
<td>3.7 (.2)</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>IFAD</td>
<td>1.1 (.3)</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>World Bank</td>
<td>50.0 (6.5)</td>
<td>50.0</td>
<td></td>
</tr>
<tr>
<td>Non-Members (includes Bill &amp; Melinda Gates Foundation)</td>
<td>57.3 (17.9)</td>
<td>57.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>128.8</td>
<td>217.5</td>
<td>346.3</td>
</tr>
</tbody>
</table>

Source: CGIAR Financial Reports, 2007
Note: Amounts in parenthesis are CP funds available in 2007 and do not represent the actual amount that is included in the funding table, but identifies the category where all CP funding is reported. Actual funding on an accrual basis that ties to this schedule is not available in the CGIAR Financial reports.

15.3.7 Conclusions and Recommendations

The Challenge Programs are large investments, representing an important milestone in the evolution of how the CGIAR and its affiliated Centers do business. However, the lack of adequate and consistent financial information for these programs is a major concern to the Panel. When a new governance structure is put in place for the CGIAR and Centers, serious thought should be given to how programs are managed to ensure that existing problems with programs are not repeated.

- **The Panel recommends that each CP develop financial statements (including cash flow, income, expenses, and funding) for each of its operating years.** This is the first step in resolving the lack of financial information.

- **The Panel recommends that an independent external financial audit be commissioned by the CGIAR for each Challenge Program annually.** After full financial statements are developed and discrepancies reconciled, the statements should be audited by an external, independent party. The Panel recommends taking action on these issues immediately because the current situation places the CGIAR, the Centers and their Boards at risk. Since the CPs are well into their sixth year of operation, this will entail a serious investment of time and resources for all parties.
• The Panel recommends that all parties should carefully examine how the current governance structure of the partnership of CGIAR and Centers, and the independent governance structure of each CP, has contributed to the weaknesses in financial management and reporting. Specifically, weaknesses in financial management and reporting are partly the result of inherent conflicts of interest, the lack of clarity in defining roles and responsibilities, and the ineffectiveness with current CP governance committees (not all, but some, have been described as needing to be overhauled). In particular, management and oversight responsibilities must be clarified and separated. Day to day financial operations cannot be managed effectively from a CP “governing board” that meets once a year. At the same time, strategic direction cannot be developed at the sub-project manager level. The CPs represent a situation where governance was conflated with management of daily operations of the program, with dire consequences for both. Financial management in particular has been weak and it must be kept in mind that unless and until the Consortium takes formal responsibility for programs, legal and fiduciary responsibilities remain with the Member/Donors, the Centers and their Boards.

• The Panel recommends that the reporting of World Bank contributions to Challenge Programs be reclassified as restricted funding and reported as such in CGIAR Financial Reports.

15.4 Financial Risk Management

15.4.1 Financial Indicators are Useful Tools for Monitoring Financial Health

The CGIAR Secretariat reports on the financial results of the CGIAR System at the end of each calendar year. These results, stated in US dollars, are consolidated from the financial results of the fifteen CGIAR Centers and the Challenge Programs. Included in the financial reports are standardized ratios that assist in monitoring the financial health of the Centers and the System overall. The CGIAR Secretariat has been instrumental in implementing the use of these ratios and also ensuring that Centers report such information annually in accordance with detailed accounting guidelines.

Although the CGIAR and its affiliated Centers are unique in comparison to other organizations, the use of ratios and benchmarks (traditional ratio analysis) can be useful in evaluating trends in financial performance and highlighting strengths and weaknesses of the current business model. As such, each Center reports information related to liquidity, the adequacy of its reserve balances, capital expenditures, indirect costs, and accounts receivables. Table 15.4.1 below reflects aggregated indicators for CGIAR and its Affiliated Centers for 2003-2007.
Table 15.4.1: Financial Indicators – CGIAR and Affiliated Center Aggregates – 2007

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrestricted Net Assets Excluding Fixed Assets (US$ Millions)</td>
<td>126.8</td>
<td>155.5</td>
<td>158</td>
<td>145.1</td>
<td>158.8</td>
<td>na</td>
</tr>
<tr>
<td>Working Capital (days expenditure)</td>
<td>151</td>
<td>164</td>
<td>155</td>
<td>149</td>
<td>161</td>
<td>90-120 days</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>1.8</td>
<td>1.9</td>
<td>1.9</td>
<td>1.8</td>
<td>1.7</td>
<td>1.5</td>
</tr>
<tr>
<td>Adequacy of Reserve Indicator (days expenditures)</td>
<td>124</td>
<td>145</td>
<td>137</td>
<td>124</td>
<td>127</td>
<td>75-90 days</td>
</tr>
<tr>
<td>Fixed Asset- Capital Expenditures (US$ Millions)</td>
<td>9.7</td>
<td>15.5</td>
<td>15.8</td>
<td>16.8</td>
<td>18.7</td>
<td>na</td>
</tr>
<tr>
<td>Fixed Assets- Capital Expenditures/Depreciation</td>
<td>63%</td>
<td>90%</td>
<td>101%</td>
<td>107%</td>
<td>110%</td>
<td>na</td>
</tr>
<tr>
<td>Efficiency of Operations Indicator-Indirect Cost Ratio</td>
<td>24%</td>
<td>21%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>na</td>
</tr>
<tr>
<td>Cash Management on Restricted Operations- Restricted Accounts Receivable Ratio</td>
<td>.55</td>
<td>.8</td>
<td>.46</td>
<td>.33</td>
<td>&lt;1</td>
<td></td>
</tr>
</tbody>
</table>

Source: 2002-2007 CGIAR Financial Reports

For the most part, a quick review of the 2007 aggregates in Table 15.4.1 would indicate that the CGIAR as a whole is healthy from a financial perspective or, as reported in the 2007 Financial Report “was in a strong financial position”. Unrestricted net assets (a reserve indicator) of $158.8 million appear reasonable. The working capital, current ratio, and actual reserves stated in days of expenditures all fall within target range. The capital expense ratio of 110% in 2007 indicates that capital expenditures are keeping pace with depreciation and, finally, the indirect cost ratio of 20% is an acceptable level of overhead costs.

This aggregated outlook, however, is not an indication of the financial health of the underlying Centers. Aggregates for the CGIAR and its affiliated Centers are somewhat meaningless since each Center is a separate legal entity, resources across Centers are not fungible and aggregate balances for items such as reserves are not useful. For example, IRRI may have a large reserve balance but such balances cannot be transferred to CIAT if needed. Although the total reserve for the two Centers might fall within normal range, an excess reserve or cash balance at one Center cannot be used to offset a shortfall at another Center. The following sections evaluate financial indicators at the Center level. Since details related to indirect costs and the calculation of the indirect cost ratio are discussed in an earlier part of this report they will not be repeated here. Specifically, this section focuses on three major indicators of financial performance; liquidity, reserves, and capital expenditures.

The following Table 15.4.2 provides an overview of the ratios, how each is calculated and what aspect of financial performance the ratio measures.
Table 15.4.2: Overview of Major Financial Indicators for the CGIAR and Affiliated Centers

<table>
<thead>
<tr>
<th>Type of Measurement</th>
<th>Indicator</th>
<th>Calculation</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity (short-term)</td>
<td>Working Capital (expressed in days expenditures)</td>
<td>(Current Assets - Current Liabilities)/Average Daily Expenditures</td>
<td>Quick look at ability to pay short term liabilities with cash or near cash assets.</td>
<td>Does not measure quality of assets or relative liquidity of items such as inventory</td>
</tr>
<tr>
<td>Liquidity (short-term)</td>
<td>Current Ratio</td>
<td>Current Assets/Current Liabilities</td>
<td>Very basic benchmark and easy to calculate</td>
<td>Crude look at liquidity, doesn’t really reflect solvency risk</td>
</tr>
<tr>
<td>Adequacy of Reserves (long-term financial stability)</td>
<td>Net Assets (excluding fixed assets) expressed in days expenditures</td>
<td>Net Assets/Average Daily Expenditures</td>
<td>Gives a good indication how long reserves would last in case of financial disruption</td>
<td>Not a long-term indicator; same as liquidity for Centers without Long-term assets and liabilities</td>
</tr>
<tr>
<td>Fixed Asset Indicators</td>
<td>Adequacy of Fixed Assets or Investments in Fixed Assets</td>
<td>Capital Expenditures and Capital Expenditures/Depreciation</td>
<td>Quick measure of whether assets used each year (depreciated) are being replaced (capital expenditures)</td>
<td>Only useful if capital requirements for future are similar to past</td>
</tr>
</tbody>
</table>

Source: CGIAR Financial Report 2007; Strengths and weaknesses added by author

A useful way to evaluate ratios is to look at trend analysis and compare the ratio over several years, noting changes that are both positive and negative. Another useful tip in evaluating ratios is to look at groupings of indicators that measure the same lever. In the following section, the Panel examines both at the Center level.

15.4.2 Liquidity is Strong for Most Centers

The CGIAR and its affiliated Centers have a strong cash flow or liquidity position. From the perspective of a financial analyst this is critical as cash is considered the lifeblood of an organization. A liquidity ratio is a short-term indicator that helps determine if there is an adequate level of cash or near cash assets to meet short-term liabilities. An asset is considered liquid if it can be converted easily to cash. Since liquidity is a short-term measurement, it matches short-term assets with short-term liabilities.

The CGIAR currently uses two indicators to monitor liquidity. They include (1) the current ratio and (2) the working capital stated in days of expenditures. Both of these calculations measure the Center’s ability to meet its short-term liabilities and/or expenses with cash or near cash assets. In the case of the current ratio (current assets/current liabilities), a value of 1.5 is considered adequate. With respect to the number of days in working capital available to cover expenses, a target of between 90-120 days is used by the CGIAR. Both of these benchmarks are widely accepted and used extensively in traditional ratio analysis.
Since the working capital indicator provides more information than the absolute value of a current ratio, the Review Panel examines the working capital indicator in more detail.

To illustrate how the indicator works, the Panel can use the information for Africa Rice that is reported in Table 15.4.3 below. The amounts in the table are expressed in days of expenditures. In 2007, the Africa Rice value is 114 days. This means that Africa Rice has enough working capital (current assets minus current liabilities) to meet its average expenses for 114 days. Since the target for the CGIAR is 90-120 days, Africa Rice is in good standing. With few exceptions the Panel’s findings regarding liquidity are very positive at the Center level. Specifically:

- IRRI maintains the highest level of liquidity, and although values have declined since 2003, IRRI has working capital to cover expenditures for 309 days- exceptional.
- Six Centers (Bioversity, CIMMYT, IITA, ILRI, World Agroforestry, and World Fish) have working capital balances that are between the upper target of 120 and 200- very good.
- Africa Rice, CIP, IFPRI, and IWMI have healthy balances that are within the target of 90-120 days-good.
- CIAT is the only Center that fell below the 90 day target in 2007 showing a very weak liquidity position of only 50 days of working capital in terms of day’s expenditures.

Table 15.4.3: Number of Days Expenditures in Working Capital

<table>
<thead>
<tr>
<th>Working Capital in Days Expenditures Target 90-120 Days</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa Rice</td>
<td>22</td>
<td>58</td>
<td>87</td>
<td>102</td>
<td>114</td>
<td>Good</td>
</tr>
<tr>
<td>Bioversity</td>
<td>101</td>
<td>124</td>
<td>124</td>
<td>104</td>
<td>123</td>
<td>Very Good</td>
</tr>
<tr>
<td>CIAT</td>
<td>75</td>
<td>77</td>
<td>61</td>
<td>38</td>
<td>90</td>
<td>Weak</td>
</tr>
<tr>
<td>CIFOR</td>
<td>197</td>
<td>230</td>
<td>191</td>
<td>193</td>
<td>219</td>
<td>Exceptional</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>39</td>
<td>54</td>
<td>79</td>
<td>94</td>
<td>142</td>
<td>Very Good</td>
</tr>
<tr>
<td>CIP</td>
<td>97</td>
<td>99</td>
<td>93</td>
<td>96</td>
<td>104</td>
<td>Good</td>
</tr>
<tr>
<td>ICARDA</td>
<td>188</td>
<td>205</td>
<td>175</td>
<td>167</td>
<td>200</td>
<td>Exceptional</td>
</tr>
<tr>
<td>ICRISAT</td>
<td>284</td>
<td>197</td>
<td>184</td>
<td>171</td>
<td>206</td>
<td>Exceptional</td>
</tr>
<tr>
<td>IFPRI</td>
<td>150</td>
<td>138</td>
<td>95</td>
<td>96</td>
<td>94</td>
<td>Good</td>
</tr>
<tr>
<td>IITA</td>
<td>113</td>
<td>112</td>
<td>162</td>
<td>159</td>
<td>175</td>
<td>Very Good</td>
</tr>
<tr>
<td>ILRI</td>
<td>159</td>
<td>216</td>
<td>231</td>
<td>194</td>
<td>144</td>
<td>Very Good</td>
</tr>
<tr>
<td>IRRI</td>
<td>553</td>
<td>490</td>
<td>422</td>
<td>388</td>
<td>309</td>
<td>Exceptional</td>
</tr>
<tr>
<td>IWMI</td>
<td>78</td>
<td>91</td>
<td>96</td>
<td>100</td>
<td>114</td>
<td>Good</td>
</tr>
<tr>
<td>World Agroforestry</td>
<td>128</td>
<td>152</td>
<td>160</td>
<td>140</td>
<td>178</td>
<td>Very Good</td>
</tr>
<tr>
<td>WorldFish</td>
<td>223</td>
<td>277</td>
<td>208</td>
<td>204</td>
<td>172</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

Note: Cells shaded red indicate a value below target; Comment column added by author for illustrative purposes only
One of the roles of a good indicator is to flag problems. In the table above, the red highlighted cells indicate values that are below the target range of 90-120 days. Although Africa Rice, CIMMYT, and IWMI show weak liquidity numbers in earlier years, their positions improved by 2007. CIAT remains the only Center with a weak cash flow position in 2007. Although the ratio does not indicate what the root cause of the problems are, the recurring weaknesses in liquidity are oftentimes a sign of fundamental problems with the underlying business model. This was indeed the case with CIAT whereby a major portion of direct costs were not being recovered under existing contracts.

Excess liquidity is rarely considered a problem, but it does reflect resources that are not currently being utilized and can, at times, be an indication of underlying delays in project implementation schedules. There are no indications of problems related to the high levels of liquidity in Centers listed above, but it is a factor to consider when liquidity reaches abnormally high levels for an extended period of time.

15.4.3 Reserve Targets Should be Increased to 180 Days

In addition to determining whether or not an organization has adequate cash to meet its expenses in the short-term, there are also benchmarks and ratios that help determine if an organization is prepared to meet financial disruptions of a longer term nature. The calculation of reserves as stated in day’s expenditures is an example of this longer term indicator. In theory, it measures long-term financial stability.

For the most part, reserves accumulate over time as a result of the excess of unrestricted revenues over expenses (a surplus). Sometimes, certain amounts are also “set aside” for reserve purposes. Reserves represent something close to what retained earnings represent for most corporations (note that the Panel believes unappropriated reserves are closer to retained earnings rather than shareholders equity since equity balances are “already spent” and unappropriated reserves are available for future events).

Using IWMI’s financial results for 2007, the calculation of the reserve indicator is straightforward. For example, based on IWMI’s 2007 financial report, the Center had unrestricted net assets, excluding fixed assets, of $4.8 million at the end of the year. This $4.8 million is considered the value of IWMI’s reserves (a cushion). The idea is to compare this reserve amount to the total expenditures and see how long the reserve would last. An average day of expenses for IWMI is roughly $62K ($22.8 million expenditures net of depreciation/365 days in the year). If you have $4.8 million and have to pay expenses of $62K daily, you would have enough money to pay expenses for 77 days ($4.8 million/ $62K). Hence, the reserve indicator of 77 days as shown in Table 15.4.4 below for IWMI in 2007.

There are two major issues related to this benchmark that need to be addressed.
First, if a Center does not have long-term assets (beyond fixed plant and equipment which is deducted) and liabilities, then the reserve calculation is the same as the calculation used above for short-term liquidity. In cases such as this, the use of the reserves indicator is not a good benchmark for longer term stability. For example, in the case of Africa Rice, the Center does not have long-term liabilities and has only property and equipment in long-term assets. Therefore, the numerators for liquidity (current assets-current liabilities, net of fixed assets) and reserves (net assets, excluding fixed assets) are identical at $3.1 million and both the reserve and liquidity indicators calculate to 114 days. IITA and IRRI have a similar situation where the calculations are equal. Translated, this means that the Center only has short-term resources available to mitigate financial disruptions. If this is the case, then higher levels of reserves are probably warranted and the use of the same calculation for liquidity should be re-examined.

Second, if reserve balances are to be viewed in terms of how they might cushion a Center against long-term financial disruptions, then the current target for the indicator of 75-90 days is too short and should be lengthened. For financial purposes, less than one year is considered short-term. The current target of 75-90 days of reserves would certainly be considered a short-term indicator, but a year of reserves, would probably be excessive. There is no exact science to determine what period should be used as a target, but the Panel believes a six month target would be more conservative and appropriate for what is being described as a long-term indicator. This is especially true in cases where Centers do not have significant levels of long term assets to match to long-term liabilities. The table below reflects the adequacy of reserve balances from 2002-2007. Using 90 days as a cut-off, there are eight Centers that do not meet reserve minimums. Note that IFPRI’s value reflects an intentional decrease in reserves and should not be viewed as a problem. Other observations include:

- Four Centers (Bioversity, IWMI, CIAT, and CIMMYT) appear to be significantly and chronically under reserved.
- CIP, Africa Rice, and World Agroforestry have reserves that have fluctuated below acceptable levels during the period.
- Recovering from an under reserved position appears to be very difficult
- Implementing the higher reserve requirements of 180 days would probably translate into at least seven (7) Centers being under reserved.

<table>
<thead>
<tr>
<th>Table 15.4.4: Center Reserve Indicators – 2002-2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Days Outstanding in Reserve Balances</strong></td>
</tr>
<tr>
<td><strong>Commodity Based Centers</strong></td>
</tr>
<tr>
<td>CIMMYT</td>
</tr>
<tr>
<td>CIP</td>
</tr>
<tr>
<td>Africa Rice</td>
</tr>
<tr>
<td>ILRI</td>
</tr>
<tr>
<td>IRRI</td>
</tr>
<tr>
<td><strong>Eco-regional Centers</strong></td>
</tr>
<tr>
<td>CIAT</td>
</tr>
</tbody>
</table>
The question regarding the adequacy of reserves is often asked. A major issue with any asset is the quality of the asset. In the case of reserves, it is important to note that net assets are often designated for specific purposes. In cases where levels of the reserves are earmarked or designated, it would be prudent to understand any restrictions that such designations may place on the use of the funds. One of the shortfalls of the reserve indicator currently being used is that it does not distinguish between designated and undesignated net assets.

As part of this review, the Review Panel noted that the World Bank funding allocation to a Center is based, to some extent, on the Center’s ability to manage its reserve balances without being “over-reserved” or “under-reserved” when compared to CGIAR targets. Although reserves are only one of many indicators that are part of the Performance Measurement System (PMS), the Panel does not agree with a policy that penalizes Centers for what the CGIAR deems as excessive reserves. In fact, they believe this is an example of a misalignment of incentives, whereby a highly efficient Center that happens to generate an unplanned surplus could be penalized rather than commended for its performance.

In summary, the Review Panel recommends an increase in reserve targets to six months, the inclusion of a second reserve calculation using only unappropriated balances, and the removal of penalties for exceeding reserve targets.

### 15.4.4 Capital Investments May Not Be Adequate

Capital expenditures are essential to maintaining the infrastructure and competitiveness of the Centers. The levels of capital expenditures since 2002 appear to be lower than levels of investments from the early 1990s. A number of changes in accounting policies that resulted in major write downs of fixed assets in 1999 and 2000 make comparisons from year to year difficult. The write-downs also distort the traditional depreciation ratios since the base for capital has been significantly reduced.
Table 15.4.5: Capital Expenditures by Center Grouping – 2002-2007

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa Rice (WARDA)</td>
<td>1.1</td>
<td>1.2</td>
<td>0.5</td>
<td>1.1</td>
<td>2.0</td>
<td>0.9</td>
<td>0.7</td>
<td>0.2</td>
<td>0.2</td>
<td>0.6</td>
<td>0.4</td>
<td>0.7</td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td>Bioversity (IPGRI)</td>
<td>0.3</td>
<td>0.4</td>
<td>1.3</td>
<td>0.6</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>1.0</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>CIAT</td>
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<td>3.1</td>
<td>1.5</td>
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<td>2.3</td>
<td>2.5</td>
<td>1.9</td>
<td>1.0</td>
</tr>
<tr>
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<td>0.4</td>
<td>0.7</td>
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<td>0.6</td>
<td>0.5</td>
<td>0.6</td>
<td>0.4</td>
<td>0.1</td>
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<td>0.4</td>
<td>0.3</td>
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</tr>
<tr>
<td>CIMMYT</td>
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<td>3.0</td>
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<td>1.6</td>
<td>1.5</td>
<td>1.4</td>
<td>1.9</td>
<td>1.4</td>
<td>0.5</td>
<td>1.6</td>
<td>1.6</td>
<td>1.0</td>
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<tr>
<td>CIP</td>
<td>0.5</td>
<td>1.0</td>
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<td>1.1</td>
<td>0.6</td>
<td>1.6</td>
<td>0.4</td>
<td>0.1</td>
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<td>0.5</td>
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<td>ICARDA</td>
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<td>0.7</td>
<td>1.3</td>
<td>0.9</td>
<td>0.5</td>
</tr>
<tr>
<td>ICRISAT</td>
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<td>2.7</td>
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<td>1.4</td>
<td>0.1</td>
<td>1.6</td>
<td>1.6</td>
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<td>0.8</td>
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</tr>
<tr>
<td>IFPRI</td>
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<td>0.3</td>
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<td>0.2</td>
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<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
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<td>0.2</td>
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<td>IITA</td>
<td>2.9</td>
<td>6.0</td>
<td>2.9</td>
<td>3.6</td>
<td>2.0</td>
<td>3.0</td>
<td>1.8</td>
<td>2.4</td>
<td>0.7</td>
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<td>1.4</td>
<td>1.5</td>
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<td>1.0</td>
</tr>
<tr>
<td>ILRI</td>
<td>1.5</td>
<td>2.7</td>
<td>3.2</td>
<td>1.4</td>
<td>1.6</td>
<td>2.1</td>
<td>1.4</td>
<td>0.8</td>
<td>0.7</td>
<td>0.7</td>
<td>1.6</td>
<td>1.5</td>
<td>1.5</td>
<td>4.3</td>
</tr>
<tr>
<td>IRRI</td>
<td>2.3</td>
<td>3.9</td>
<td>1.6</td>
<td>1.8</td>
<td>3.0</td>
<td>2.5</td>
<td>1.5</td>
<td>2.4</td>
<td>1.1</td>
<td>1.8</td>
<td>3.0</td>
<td>1.6</td>
<td>3.5</td>
<td>3.6</td>
</tr>
<tr>
<td>IWMI</td>
<td>0.6</td>
<td>0.7</td>
<td>0.7</td>
<td>0.6</td>
<td>0.6</td>
<td>0.4</td>
<td>0.3</td>
<td>1.3</td>
<td>0.8</td>
<td>0.6</td>
<td>0.3</td>
<td>0.6</td>
<td>0.6</td>
<td>0.2</td>
</tr>
<tr>
<td>World Agroforestry (ICRAF)</td>
<td>0.6</td>
<td>0.7</td>
<td>0.7</td>
<td>0.6</td>
<td>0.6</td>
<td>1.1</td>
<td>0.4</td>
<td>0.6</td>
<td>0.3</td>
<td>0.4</td>
<td>1.2</td>
<td>1.1</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>WorldFish (ICLARM)</td>
<td>0.1</td>
<td>0.7</td>
<td>0.5</td>
<td>1.5</td>
<td>0.9</td>
<td>0.3</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.6</td>
<td>0.2</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19.8</strong></td>
<td><strong>28.7</strong></td>
<td><strong>24.4</strong></td>
<td><strong>20.3</strong></td>
<td><strong>25.7</strong></td>
<td><strong>18.0</strong></td>
<td><strong>15.0</strong></td>
<td><strong>15.9</strong></td>
<td><strong>9.3</strong></td>
<td><strong>9.7</strong></td>
<td><strong>15.5</strong></td>
<td><strong>15.8</strong></td>
<td><strong>16.8</strong></td>
<td><strong>18.7</strong></td>
</tr>
</tbody>
</table>


Table 15.4.5 shows capital expenditures for each Center for the 1994-2007 period. As you can see, capital expenditures were higher in 1995 and 1998 than any other year during the period. Major declines to below $10 million occurred in 2002 and 2003. Figure 15.4.1 below also illustrates capital investments for the period in both constant and nominal dollars. The graph reflects the uneven investment levels showing a decline in both nominal and constant dollar terms for the period. Overall, constant dollar capital investments declined from $30.3 million in 1994 to $18.7 million in 2007, a total reduction of $11.6 million or 38%.
Figure 15.4.1: Capital Expenditures by Center Grouping – 2002-2007

Note: Constant dollar calculations based on inflation adjusted information provided in CGIAR Financial Reports

A determination of the appropriate level of capital investments needed throughout the CGIAR System is beyond the scope of this review. However, it is imperative that Centers take a close look at their current and future needs for capital, taking into consideration the long-term strategic goals of the Center and what it will require to remain competitive and relevant. The Panel believes that current investment levels may be inadequate, especially at Centers where financial strains have limited the ability to make necessary capital expenditures.

15.4.5 Financial Results Show Ongoing Volatility

In order to gain a better perspective on the level and frequency of operating deficits, the Panel extended their review back to 1995 and looked closely at results for the thirteen years from 1995-2007. They found that deficits occurred during five of the past thirteen years. The fluctuations in financial results are a concern, not only because of unplanned deficits, but also due to the fact that there were wide variances between planned and actual results.

Table 15.4.6: CGIAR and Affiliated Center Financial Results-1995-2007

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>$344</td>
<td>$346</td>
<td>$353</td>
<td>$342</td>
<td>$350</td>
<td>$353</td>
<td>$371</td>
<td>$398</td>
<td>$453</td>
<td>$460</td>
<td>$448</td>
<td>$518</td>
<td>$520</td>
</tr>
<tr>
<td>Expenditures</td>
<td>$338</td>
<td>$355</td>
<td>$346</td>
<td>$337</td>
<td>$349</td>
<td>$338</td>
<td>$355</td>
<td>$381</td>
<td>$395</td>
<td>$425</td>
<td>$452</td>
<td>$458</td>
<td>$506</td>
</tr>
<tr>
<td>Operating Deficit/Surplus</td>
<td>$6</td>
<td>$(9)</td>
<td>$-</td>
<td>$16</td>
<td>$(7)</td>
<td>$12</td>
<td>$(2)</td>
<td>$(10)</td>
<td>$3</td>
<td>$28</td>
<td>$8</td>
<td>$(10)</td>
<td>$14</td>
</tr>
</tbody>
</table>

Unplanned deficits are disruptive and destabilizing to the Centers and the System. Unplanned surpluses may also be a problem and could indicate a weakness in the ability to deploy funds in a timely and efficient manner. In short, it is the variability from what is or was planned that triggers red flags from a financial management perspective. Whether viewed from a nominal or real dollar perspective, the fluctuations in CGIAR’s financial results are significant.

Figure 15.4.2 reflects fluctuations in constant 2007 dollars for the past thirteen years, confirming a long-term and ongoing pattern of financial instability.

**Figure 15.4.2: CGIAR Deficits and Surpluses 1995-2007**

<table>
<thead>
<tr>
<th>Year</th>
<th>Surplus/Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>$11.7 million</td>
</tr>
<tr>
<td>1996</td>
<td>$20.0 million</td>
</tr>
<tr>
<td>1997</td>
<td>$14 million</td>
</tr>
<tr>
<td>1998</td>
<td>$30.0 million</td>
</tr>
<tr>
<td>1999</td>
<td>$11.7 million</td>
</tr>
<tr>
<td>2000</td>
<td>$14 million</td>
</tr>
<tr>
<td>2001</td>
<td>$30.0 million</td>
</tr>
<tr>
<td>2002</td>
<td>$14 million</td>
</tr>
<tr>
<td>2003</td>
<td>$30.0 million</td>
</tr>
<tr>
<td>2004</td>
<td>$14 million</td>
</tr>
<tr>
<td>2005</td>
<td>$30.0 million</td>
</tr>
<tr>
<td>2006</td>
<td>$14 million</td>
</tr>
<tr>
<td>2007</td>
<td>$30.0 million</td>
</tr>
</tbody>
</table>

Source; CGIAR Financial Reports 1995-2007

### 15.4.6 Old Challenges Resurface Year after Year

As part of the review, a summary of major financial highlights was prepared using both Center and CGIAR System financial reports. Table 15.4.7 presents information for each year from 1995-2007, describing several major financial crises, identifying the likely cause(s), and noting actions taken to mitigate the problems. Situations where actual Center funding fell significantly short of plan and/or emergency funding was provided by the World Bank or members is also noted in the summary where reported in CGIAR Financial Reports.

A number of key findings can be identified from the review.

- A System level surplus is not indicative of financial health at the Center level. For example, a surplus of $16 million was generated in 1998, but crisis financing was allocated to ICRISAT, ILRI, and ICARDA in the same year. A similar situation occurred in 2000 when four Centers were significantly underfunded, yet the System generated a surplus of $12 million.
Major problems with the EC occurred twice during the period, creating operational disruptions in each case. In 1999, the EC defaulted on a $16 million commitment due to what was described as bureaucratic mishaps. In 2006, EC did not fund its commitment of $30 million due to disputes over the handling of funds via the World Bank’s Multi Donor Trust Fund (MDTF). Although it may not be possible to avoid extenuating circumstances, it appears that official notifications to Centers were sent at the end of the fiscal year. This made it virtually impossible for Centers to make adjustments to cover funding gaps.

There are instances where losses at the Center operating level were “smoothed” to some extent, by adjustments made at the System level. Management’s decision to advance funding in 1999 only placed pressure on 2000, where the loss eventually occurred.

There may be a chronic delay in the implementation and execution of projects at certain Centers, exacerbating funding shortfalls as revenues are not recorded until projects commence and expenses are incurred.

Noticeably absent from CGAIR annual financial reports are details related to the actions taken by the Centers in order to mitigate future funding gaps. The CGIAR has not documented year to year financial challenges in a thorough and transparent manner.

Table 15.4.7: Summary of CGAIR Financial Crises

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Description of Financial Crises</th>
<th>CGIAR Member Action</th>
<th>Centers Action</th>
<th>Financial Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994-1995</td>
<td>- Centers experienced significant declines in funding for “agenda” research projects - Underfunding by more than 5% at CIAT, ICRISAT, and IITA due, in part, to slower project implementation leading to lower revenue</td>
<td>- World Bank financial assistance provided -18-month stabilization program implemented -World Bank agreed to match 50% up to $20 million in donor contributions for agenda funding (2 year program) - World Bank reserve of $2.5 million created as part of reform and efforts to mitigate future funding instability</td>
<td>- In 1995, three Centers were underfunded by more than 5%, CIAT, ICRISAT, and IITA</td>
<td>- 1995-System surplus of $6 million - Over two year period, an additional $20 million was received from Members; $20 million was redirected from non-agenda to agenda items an; the World Bank provided additional $20 million in matching funds - $60 million in adjustments over two year period - Management reported in CGAIR Financial Report that stabilization targets were met</td>
</tr>
<tr>
<td>Time Period</td>
<td>Description of Financial Crises</td>
<td>CGIAR Member Action</td>
<td>Centers Action</td>
<td>Financial Outcome</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------</td>
<td>----------------------</td>
<td>----------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>
| 1996        | - A "mini" financial crisis resulted in funding shortfall of $20 million | - Rescue package of $10 million in additional funding from members allocated to five centers – CIAT ($3.2), CIMMYT ($1.0), ICRISAT ($2.8), IITA ($1.3), and ILRI ($1.8). | - The total funding gap was estimated at $20 million with half made up by $10 million from members and the other half ($10 million coming from reduction in expenditures at CIAT, ICRISAT, CIMMYT, IITA, and IITA. | - 1996- System deficit of $9 million
- By end of 1996 management viewed finances of the CGIAR as strong and healthy
- $10 million rescue package to five Centers
- Redirected $12 million from non-agenda to agenda
- Modifications to CGIAR financing arrangements noted
- In order to cover about half of shortfall, five Centers cut back expenditures by an estimated $10 million
- Also, Centers cut significant levels of staff |
| 1997        | - No major financial crisis but ILRI was substantially below financing plan due to Global Livestock Program ($2.5); ICARDA also well below funding plan | - CIAT, ICRISAT, CIMMYT and IRRI received special financing of $5.2 million from World Bank reserve fund | - No major action mentioned in 1997 financial report | -1997- Breakeven operating results
- The process of setting up a reserve for the portion of World Bank funds and then allocating the amount to Centers who are underfunded appears to be accepted by CGIAR Finance Committee (author note: possibly rewarding mismanagement ) |
| 1998        | - No major financial crisis | - $7.1 million in crisis funding allocated to ICRISAT ($3.5), ILRI ($2.0), and ICARDA ($1.6) | - No major cutbacks noted in financial reports | - 1998- $16 million surplus
- CGIAR financial position described as ‘strong’ in CGIAR financial report |

Chapter 15 Financial Management
## Financial Management

### Time Period | Description of Financial Crises | CGIAR Member Action | Centers Action | Financial Outcome
--- | --- | --- | --- | ---
1999 | - EC defaulted on $16 million commitment  
- Due to advancing funds into 1999, net deficit for the System $7 million rather than entire $16 million.  
- If the EC money had been received, ILRI, ICARDA, CIAT, CIFOR, and CIP would still have had deficits. | - Finance Committee provided special allocations to ICLARM's headquarters move ($2.5) and ILRI's system-wide livestock program ($1.5) | - 11 Centers had operating deficits  
- No major action taken by Centers | - 1999- $7 million deficit  
- In order to mitigate losses due to EC shortfall, ILRI, ICLARM, IFPRI, and IWMI received funds an advance in 1999 that will be spent in 1999 and reflect as deficits in 2000 (author note: simply delays recognition of loss)

2000 | - System generated surplus of $12 million  
- Funding for four Centers was 10% or more off from plan- IWMI ($1.3), ICLARM ($2.5 million), ILRI ($4.9 million) and WARDA ($3.7 million)  
- Lower funding attributable to slower than planned project implementation | - No special action by Finance Committee | - No major actions taken by Centers | - $12 million surplus  
- $74 million write down of net assets to reflect new accounting guidelines

2001 | - System generated deficit of $2 million funded from Center reserves (unappropriated net assets)  
- Seven Centers were underfunded by more than 10%- CIAT ($4.8 million), CIFOR ($1.5 million), CIP ($3.6 million), ICARDA ($3.5 million), ICLARM ($2.6 million), ICRISAT ($2.7 million), and WARDA ($4.3 million)  
- Lower funding attributable to slower than planned project implementation  
- Weak European currencies also contributed to gap | - No special allocations  
- World Bank funding in 2001 included $1.4 for System review and CGIAR Committees, $3.0 million advance, and $1.8 million reserve | - Subsequent to approval of 2001 financing plan of $340 million, Centers estimated that funding would reach $364 million. Finance Committee held tight and did not increase financing plan  
- Actual funding reached $337 million, much closer to original estimate. | - $2 million deficit  
- Management described financial position, in the aggregate, as healthy in annual financial report

2002 | - System generated surplus of $2 million, due to System level funding of extra $12 million to more than offset losses at operating Centers of $10 million | No special allocations | No special actions | - $10 million deficit at the Center level offset with System level funding of $12 million, netting surplus of $2 million

2003 | - Operational Surplus  
- ISNAR ceased operations  
- Challenge Programs initiated | No special allocation | No major actions | - $3 million surplus  
- Planned a deficit but ended with surplus

---

Chapter 15 Financial Management
<table>
<thead>
<tr>
<th>Time Period</th>
<th>Description of Financial Crises</th>
<th>CGIAR Member Action</th>
<th>Centers Action</th>
<th>Financial Outcome</th>
</tr>
</thead>
</table>
| 2004       | - IFPRI, CIP, and IPGRI had funding increases in excess of 20%  
- 14 Centers ended year with surplus | No special action required                                                                 | No special action required | - $28 million surplus  
- Planned a deficit of $5 million but ended with $28 million surplus (author note: although favorable, this is a large variance) |
| 2005       | - Challenge Program funding totaled $35 million  
- $8 million operating surplus | No special action required                                                                 | No special action required | - $8 million surplus  
- Planned to breakeven |
| 2006       | - Operating deficit of $10 million mainly due to $30 million EC funding shortfall  
- EC loss offset by World Bank funding of $6 million and $8 million from non-members. | - Special allocation of $6 million from World Bank to offset loss of EC funding of $30 million  
- Non member special funding of $8 million | - Center financial reports indicated that notification of EC shortfall was very late in year making it difficult to curtail spending | - $10 million deficit  
- Funding fell short of plan by $26 million. – Plan was optimistic in projecting good year where expenditures would exceed funding by $20 million and be funded by reserves  
- Resulted in challenging year (note CIAT financial crisis not highlighted in financial results) |
| 2007       | - EC doubled funding in 2007 to make up for shortfall in 2006  
- 11 Centers ended the year with a surplus | - No special action | - No special action (Author Note: no mention of CIAT crisis in annual financial report) | - $14 million surplus  
- Planned a $28 million deficit |


Although each crisis under review tells a somewhat unique story, there were a number of factors cited year after year as contributing to financial instability. The most frequently mentioned factors include:

- Funding gaps due to slower than expected project implementation, especially on restricted projects.
- Foreign currency fluctuations
- Overall decline in funding, especially unrestricted levels

From a financial management perspective, the first item is within the control of the Centers. Identifying specific processes that need improvement is beyond the scope of this section, but the need to improve project execution is evident by the number of times it has negatively impacted financial results.
The second item, foreign currency fluctuations could be mitigated with appropriate hedging techniques. If, in fact, currency fluctuations are creating major, unplanned disruptions, then Centers need to take action to put such procedures in place.

Although the exact impact of annual currency fluctuations by Center has not been calculated for each year, it is important that the devaluation of the US dollar does not become a ‘catch all’ for other root causes of financial instability.

The third and final item sited as the cause for financial instability, the decline in overall funding, is probably the single most important challenge facing Centers and the CGIAR System. Absolute funding levels do not reveal the complex mix of funding factors that influence funding flexibility and/or stability.

15.4.7 Major Weaknesses in Current Structure of Financial Oversight

The Panel’s findings indicate that the current governance structure of the CGIAR does not allow for effective financial management and oversight at the System level. Although the current financial team in the CGIAR Secretariat has responsibilities for aggregating and reporting financial data from the affiliated Centers and the four Challenge Programs, it does not have the required responsibilities or authorities to play as effective a financial oversight role as it should.

The importance of effective financial management and oversight at the System level cannot be overstated. Without it, the CGIAR can neither manage nor mitigate financial risk. Currently, one of the few actions that the Executive Committee of the CGIAR can take is to award emergency funding during time of crisis. This falls far short of effective financial oversight and should not be the only recourse for mitigating risk.

The decision to disband the Finance Committee of the ExCo only exacerbated financial weaknesses by removing the only mechanism in place that could have been effective in an oversight role. The Review Panel believes the establishment of a strong Finance Committee within the proposed consortium of Centers is essential (see details in earlier section). This is a matter for the Centers collectively to address, not the donors as such.

15.4.8 Conclusions and Recommendations

- **The Panel recommends that Center reserve requirements be increased to 180 days.** They do not believe the current range of 75-90 days for reserves is adequate to cover for long-term financial disruptions. A minimum of six months reserves is more conservative and cushions Centers against unplanned deficits as well as unexpected disruptions in financial operations. Also, a consideration of the differences between
designated and undesignated or appropriated and unappropriated net assets should be included in the analysis.

- **The Panel recommends that penalties related to reserve levels that exceed targets be eliminated.** Although this applies only to the allocation of World Bank funding, they do not believe the current policy properly aligns management incentives as it could place an added financial burden on Centers that exercise good financial management.

- **The Panel recommends a thorough review of future capital requirements.** The current level of capital investment does not appear adequate given that it represents a major decline in constant dollar terms. The determination of adequate capital investments is a major effort and needs to be done with a clear vision and strategy as to what the CGIAR Centers will need to maintain competitiveness and relevance in future years. Also, Centers that have experienced financial stress such as CIAT need to be examined to determine if capital investments have fallen behind significantly.

- **The Panel recommends that the new governance structure ensure that authorities for financial management and oversight are aligned with responsibilities and the mechanism needed to take action when necessary.** The current structure suffers from a history of inaction due primarily to the lack of appropriate oversight that aligns responsibility with authority. Without a means for intervening where needed, Centers are not compelled to make changes and financial weaknesses persist for extended periods.

- **The Panel recommends that the reporting of CGIAR financial results for the affiliated Centers clearly document the financial challenges that are encountered and actions taken to mitigate such challenges.** The detail contained in CGIAR Financial Reports does not always address major financial challenges (such as CIAT). Additional analysis of current financial issues should be added to ensure that stakeholders have the information necessary to assess the financial condition of the CGIAR and its affiliated Centers.
Notes

1 Source: Panel Review of the CGIAR System, Inception Report, February, 2008, Appendix 2. Unless otherwise noted, the percentage splits reported are based on total funding, not total revenue. For example, the 2007 split between restricted funding ($316/$495) and unrestricted funding ($179/$495) is 64%/36%. In comparison, total unrestricted resources, including other income, were $204 million. If based on all sources, the percentage of unrestricted revenue ($204/$520) would be 39%, not the reported 36%.

2 CGIAR Annual Reports, 1995 to 2007, The inflation rates are dollar-based annual rates for each Center. They are derived from three elements (1) the currency basket of a Center’s expenditures (source: Centers); (2) annual inflation rates (as measured by the consumer price index) on the currencies in the basket (source: IMF International Financial Statistics); and (3) annual changes in exchange rates of each currency in the basket against the US dollar (source: IMF “International Financial Statistics”)

3 In 2007, the European Commission donated $62.4 million, which includes the $30 million that was not received in 2006 as the result of incomplete negotiations with the World Bank regarding the Multi Donor Trust Fund (MDTF).


5 Report of the Third External Program and Management Review (EPMR) of the World Agroforestry Center (IRAF), Science Council Secretariat, March 2006


8 CGIAR Annual Reports, 1995 to 2007, The inflation rates are dollar-based annual rates for each Center. They are derived from three elements (1) the currency basket of a Center’s expenditures (source: Centers); (2) annual inflation rates (as measured by the consumer price index) on the currencies in the basket (source: IMF International Financial Statistics); and (3) annual changes in exchange rates of each currency in the basket against the US dollar (source: IMF “International Financial Statistics”)

9 As reported, a Center’s general and administrative expenses such as costs for the Board of Trustees and, Director General’s Office, along with expenses for administration, internal audit, finance, human resources, personnel and purchasing are all typically included as indirect costs.


12 Ibid.

13 Ibid.


16 Discussions with the Director of Internal Audit (IA) confirmed that there are no aggregated, audited financial statements for the CPs at the program level. The IA also supported our recommendation that statements be developed and then audited by an independent firm.

Information based on conversation with author Dr. Markus Palenberg, IDS Institute for Development Strategy, Munich, Germany: May 5, 2008 via phone.
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**References**


Independent Review of the CGIAR System


References


APPENDIX 1
SURVEY OF INFORMED STAKEHOLDERS:
SUMMARY OF RESULTS

Acknowledgements

The Panel is grateful to Anne Perkins and Gerald Neville, who implemented the Panel’s Survey and analyzed its results. Their expertise and dedication contributed to an unprecedented response rate and a compendium of invaluable information regarding the opinions of knowledgeable stakeholders. Anne Perkins deserves special thanks for preparing this Summary document.
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Executive Summary

This Executive Summary looks at the main findings of the survey of people actively involved in the CGIAR, 2001-2007, from three different perspectives:

(a) Common or overarching themes;
(b) Responses to survey by topic; and from
(c) How the five respondent groups interpret the CGIAR System.

The survey was conducted in early 2008 as part of the work of the Independent Review Panel. The results are intended to complement visits to the Centers and extensive personal interviews that were undertaken by members of the Review Panel during the same period.

In preparation for the survey, a working version of the questionnaire was developed and pre-tested with 12 individuals from across the CGIAR System and among donors. The final version was sent to potential participants in five groups: Executive Council and other member representatives; Board Chairs and Center Executives; Challenge Program representatives; Science Council; and professional staff. Respondents were guaranteed confidentiality. [See Appendix 2 for the final version of the Survey Questions.]

Out of the sample of 227 people whose addresses could be verified, approximately 85% responded. Tables summarizing the results of the survey and coded by question number are found in Appendix 4.

Common Themes

(1) The Effectiveness Deficit

When respondents were asked to judge the importance and effectiveness of each CGIAR System actor, function or activity, the effectiveness rating was almost always significantly below the importance rating. Dealing with this “effectiveness deficit” is the System’s most pressing challenge.

Figures 1 A to E illustrate the disparity between the importance and the effectiveness ratings on some key aspects of the CGIAR Network from the perspective of all respondents. The bar charts are a simplification of the underlying data. For example, “important” is defined as the percentage of respondents who checked “important” or “very important” on a five point scale. “Effective” is defined similarly, based on a five point effectiveness scale.
Figure 1A: A Comparison of Importance and Effectiveness Ratings of Various Aspects of the CGIAR and its Affiliated Centers

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Respondents were also asked to comment on the importance of the Science Council-led priority-setting exercise, the effectiveness of the resulting priorities as a guide to decision-making and resource allocation, and the effectiveness of the CGIAR and Centers in the five research priority areas (Questions 3A-E and 12 A-B). They clearly felt that the CGIAR/Centers are not working equally effectively in each of the five research priority areas.

The importance and effectiveness ratings for these questions are depicted in Figure 1F, following:
(2) Roles, Responsibilities and Authorities

The survey revealed clearly that responsibilities and authorities are not well balanced. Throughout, respondents pointed to the need to clarify, strengthen, change, and/or re-distribute roles, responsibilities and authorities with respect to CGIAR System actors, defined broadly to include state and organizational donors, co-sponsors and partners. It was also apparent that many respondents did not know who has responsibility and authority to make decisions and/pr to get things done.

In some areas of the survey – especially those addressing governance-related issues – this was one of the most important issues flagged by respondents for urgent resolution. The need to address roles, responsibilities and authority issues was also given serious consideration by respondents in the sections on partnerships, co-sponsors including the World Bank, and on the history and future of reform.

Ensuring that roles, responsibilities and authorities are clear, clearly assigned to the appropriate actors, and carried out effectively are essential in a well-run partnership. Without some common purpose and understanding of who/what actors are responsible for what and where the authority or authorities rest, the network cannot hope to function effectively – from either a management or a results perspective.
(3) **Opinions – Some Shared, Others Polarized**

Looking at the survey results as a whole, it is surprising how much agreement there is about the importance or effectiveness of a particular CGIAR actor or activity. Differences of opinion tended to be much more polarized in the respondents’ more open-ended comments, especially if they were focusing on areas where there was already some disagreement – like getting rid of Challenge Programs. [See “suggestions for improvement and respondent comments” in most sections of this summary for examples.]

There is also a great deal of consistency between groups on the relative priority of the options offered for discussion in the questions on how to improve a given situation. There is from 90 to 100% agreement on the relative priority of options for eight of the 18 “how to improve” questions, 80 to 89% agreement on seven of them, and agreement on the remaining three ranged between 67% and 73%. However, it should be noted that the percentage of respondents who actually selected an option at the same priority level might be dramatically different from group to group. For example, both professional staff (88%) and board chair/Center executive (53%) groups placed “strong oversight powers to the ExCo Ad Hoc Committee on Finance” as the first priority among four possibilities.

There are also some very significant disagreements, between both groups and individuals in a group.

Differences between individuals are particularly evident in the comments about the kind of partnership respondents want to see the CGIAR and Centers become. For example, some in each group think the System should become more centralized (e.g., with respect to financial decision-making), whereas a nearly-equal number think it should become more decentralized. There could also be a significant degree of polarization of opinion between members of the same group. For example, 50% of Science Council respondents think that having the World Bank provide the CGIAR Chair is important, whereas another 44% believe that it is of no or minor importance.

There are also sizable differences in viewpoint from group to group on some topics. For example, 60% of Science Council respondents thought that the Bank’s method of allocating financial resources should be more performance-based, whereas only 29% of professional staff and 38% of all respondents agree. Similarly, there is considerable disagreement over whether the CGIAR and Centers have been effective in achieving gender and diversity objectives; or whether the Executive Council, the Science Council or Challenge Programs are performing well.

Finding such differences of opinion should perhaps be expected, given the history and nature of the network/partnership, and the issues it now faces. What is surprising is the level of agreement. Based on many of their comments, most respondents appear to...
recognize that building on agreement and finding workable solutions to which all parties can become committed are vital if the partnership/network is to achieve the desired results and outcomes in an effective way. However, it is also important that individual CGIAR actors, co-sponsors and partners take a closer look at their own strengths and weaknesses and how others see them, if they are to be truly effective participants in the Network. This is examined again toward the end of the Executive Summary.

(4) The Need for Better Communications

Many respondents clearly think that there are issues of communications and trust between the Centers, the CGIAR, the Science Council, and external stakeholders. For example, a number of respondents commented that the nature of the Executive Council’s mandate and responsibilities has not been clearly communicated to others in the System and outside stakeholders. Respondents also thought that the Council’s relationships with other CGIAR actors and stakeholders are not as effective as they might be. Similar comments were made about the World Bank’s relationships with other co-sponsors and partners, the Science Council, the Alliance, the Secretariat, and other System actors.

The CGIAR System is a partnership and network. For this reason, good, clear and open communications and strong, trust-based inter-relationships are essential.

(5) The Need to Manage Partners and the Partnering Process Well

The CGIAR System overall, the Centers and the Challenge Programs depend directly on the nature and health of their partnerships, both within the System and with those outside such as NARS, NGOs, private foundations, and others. Observations about these partnerships and how to improve them were made throughout the survey. However, parts of several survey questions focused directly on this issue. Among the more important insights into how these partnerships might be better managed were:

- Recognizing the need to understand the mandates, goals and aspirations of the partners as they relate to the CGIAR system, its programs and activities, and to manage the impact of these when they differ from those of the CGIAR System.

- The need to develop effective policies and strategic frameworks or plans for partnering with both research partners and with co-sponsors.

- The need to find a variety of approaches and tools to harness and support these partnerships and make them more effective (a number of suggestions are listed in Section 4.3).

1 Some parts or all of Survey Questions 6-7, 10-13, 15-16, and 18-20 dealt with relations with “outside partners,” as they have been defined here.
• The need to consider whether partners should have a role (or a different or stronger role) in CGIAR and Center governance.

• Recognizing the need to change Center and Science Council corporate cultures to make them more partnership-friendly and capable by using various training and development strategies (hiring practices, building working capacity; knowledge/skills development, mentoring, etc.).

• With respect to funders and co-sponsors in particular, the need to recognize and deal directly with real or perceived conflicts between their funder role and more active roles in the CGIAR system (e.g., the World Bank’s roles as major donor and in oversight and governance).

Responses to the Survey by Topic

This section takes a different perspective on the survey responses, but covers the same ground as the previous section. Survey questions were organized according to seven themes: Science, Funding, Governance, Co-sponsors, Gender and Diversity, Partnerships, and Reform and the Capacity for Reform.

1. Science

The Science Council’s roles and responsibilities, and relationships with other CGIAR System actors, were frequently questioned. Respondents focussed on (a) the nature, quality and quantity of Science Council personnel and other resources; (b) the degree of creativity, innovation and appropriate risk-taking needed to support ground-breaking research; and (c) ways to improve the Council’s performance with respect to the evaluation of project or program outcomes and impacts. Most respondents thought that responsibility for the ethics review of research proposals should rest with the Science Council.

The priority-setting exercise led by the Science Council was not rated highly. Respondents commented on the need for three things (a) a new CGIAR/Centers vision; (b) a priority-setting process that is results focussed; and (c) realistic priorities against which achievements can be measured and future resources allocated.

Problems with the five research priorities included: (a) insufficient financial support; (b) weak System support for innovative research and approaches to research; and (c) the indirect relationship between “academic” scientific research and development impact “on the ground.”
The Challenge Programs were not highly rated. There was general uncertainty whether they should stay or go. They are thought by many to be poorly managed, costly, and competing against the Centers for financial and other resources. Some wondered which CGIAR actors ought to take “ownership” of these programs or whether they should become much more independent from the System than now is the case. Difficulties with the selection of research topics and in the awarding of contracts were also noted.

2. Funding

The key issues with respect to unrestricted funding were the need to: (a) reverse declining levels of unrestricted funds; (b) improve management to build trust and thereby attract more unrestricted funds from donors; and (c) manage the relationship with donors better. Some key issues identified in relation to financial management were: (a) a concern that there is a general lack of appreciation of the importance of risk management; and (b) the need to have qualified people in place across the system, who understand finances, audit and risk management.

3. Governance

There was a consensus that the governance of the CGIAR/Centers partnership is under great stress, but no consensus about what exactly should be done. Comments about the current state of CGIAR governance and what still needs to be done included: (a) continuing difficulties associated with finding a workable and effective balance in the partnership between centralized functions and decentralized functions; (b) concerns about the involvement and commitment (or lack thereof) to better governance on the parts of some key actors and stakeholders; (c) the need to improve coordination and inter-relationships between Centers, donors, the Science Council and other stakeholders; and (d) the importance of improving management structures and practices.

In addition to comments about the mandate, roles and responsibilities of the Executive Council and its relationships with other Systems actors, respondents commented on (a) whether the Council should have more or less decision-making power; (b) whether it should be more representative of stakeholders; (c) the mechanics of Council operations (poor meeting practices, participants becoming unprepared, etc.); and (d) the general lack of vision and creativity.

4. Co-Sponsors – the World Bank and Others

The World Bank makes a substantial financial contribution to the CGIAR System. It also makes many non-financial contributions, including appointing and providing the Chair of the Executive Committee, Director of the Secretariat, provision of secretariat offices, and the use of its convening power. In addition to the issues already discussed, some
respondents noted: (a) a perceived need for greater transparency and professionalism; and (b) the possibility that the management functions of CGIAR should be more independent from the World Bank.

With respect to the World Bank’s financial roles respondents voiced some of the same concerns as they had expressed elsewhere – although they received extra emphasis in this context: (a) real or apparent conflicts of interest between the donor and manager roles; (b) the need to clarify and/or assign roles and responsibilities to other CGIAR actors; and (c) the need for more openness and transparency on how/why decisions are made, especially with respect to funding and staffing. Many respondents thought that the Bank (and the CG Secretariat) should develop a fully-analysed position on unrestricted funds and be more proactive in “selling” it to donors. Some respondents also thought that services to members, presently provided by the CGIAR Secretariat, could be improved, while others commented that it has too few financial and personnel resources to fulfill all its functions well.

In general, issues about the other co-sponsors included: (a) whether the concept of “co-sponsors” should be continued or not; (b) what additional powers and responsibilities they should have; and (c) whether the co-sponsors should become more involved in the CGIAR/Centers/Challenge Programs and, if so, how.

5. Gender and Diversity Programs

Respondents noted the need for more work to make the gender and diversity perspective an integral part of Network and Center culture. However many respondents noted that there is a potential conflict between, on the one hand, making sure gender and diversity perspectives are respected and, on the other, the need to maintain a strong commitment both to hiring the best managers, scientists and other specialists, and to doing the best science possible. A couple of other difficulties were also noted: (a) the pool of female researchers, especially those who might be willing to work in difficult environments, is limited; (b) there has been a lack of financial and other resources to advance the gender and diversity agenda, although this appears to be changing; and (c) there is a lack of expertise in using a gender perspective to do sound research. Several respondents noted that implementing successful gender and diversity programs this is an on-going challenge, one that needs the continuing visible support of co-sponsors and other partners.

6. Partnerships

Most of the key points about partnering and partnerships have already been summarized in the context of common or overarching themes. Additional issues that arose include the following: (a) Centers should be rewarded through the performance management system for how well they form and manage their partnerships; (b) there is a concern about
duplication of work and/or administrative activities among partners (especially with respect to ARIs and NGOs); and (c) there is also a concern that potential that partners might compete with Centers for money and personnel (and that centers are competing with one another in this respect). Some respondents thought that a general partnering strategy would not be useful because different types of partners present different challenges.

7. Reform and the Capacity for Reform

The overall consensus was that reform efforts since 2002 have, at best, been moderately effective, although they have been costly, both in terms of money and administrative burden. Many respondents suggested changes that would improve governance in the future – some of which have already been discussed in other contexts, including (a) developing and coming to agreement on a shared vision of the partnership and network; (b) finding a more effective balance between centralization (standardization) and decentralization (flexibility); (c) improving coordination and inter-relationships internally and externally; and (d) improving management structures and practices. Respondents identified some key barriers to reform and provided ideas on how they might be overcome. The barriers identified were: (a) the narrow self-interest of some donors and some Centers; (b) reform burnout; (c) a limited ability to move from agreement on conceptual reforms to implementation; and (d) a lack of common vision to go beyond existing mandates and structures.

Respondent World Views – How the Groups interpret the CGIAR

The five groups of respondents are not fully distinct. Individuals have often played several roles in the CGIAR, the Centers and/or the Science Council over a period of time. Nevertheless the groups do tend to display different perspectives in their responses. The overall impression one gets from reading the full responses is that each group is focused on its own particular needs and interests. A second impression is that the level of understanding of each other’s points of view is not very high. Not being aware of and/or being able to manage the differences may eventually undermine the CGIAR partnership and network.

For this reason, it is important that CGIAR actors and stakeholders be as fully-aware as possible of the differences and similarities in the perspectives between the population subgroups. Herein lies opportunity. Where there is sufficient agreement over, say, the importance of a particular CGIAR actor, the conditions exist for cooperative action to increase effectiveness. And, where key differences are recognized, there is space to begin to explore new ideas and/or ways to address critical challenges.
The intent of this section of the Executive Summary is to highlight the similarities and differences in perspective among the five population groups. Figures 1G-H in subsections 2 and 3, following, compare their different viewpoints on the importance and effectiveness in table form. These different perspectives are also depicted in scattergrams (Appendix 3), which provide another view, by mean score, of the way each sub-group interprets the CGIAR universe. These will be examined toward the end of the section.

1. The effectiveness of the five priority research areas

There was general agreement that the CGIAR and Centers are highly effective in the Sustaining Biodiversity and Genetic Improvements research areas, with ratings in the 70- and 80-percent range. Only the respondents liked to the Challenge Program disagreed (67% rated the Centers’ work in Sustaining Biodiversity and genetic improvements as ineffective). Agricultural Diversification received ratings in the low-mid range (18-28%), although Challenge Program respondents were again out of step (50% effectiveness). Opinions about CGIAR and Center effectiveness in Sustainable Resources hovered around 55%; only professional staff disagreed (79% ineffective). Finally, Policies and Institutions were given ratings in the 35% range, with the exception of Challenge Program respondents (20% effective) and professional staff (13% effective).

Where effectiveness ratings were low (Agricultural Diversification and Policies and Institutions), the percentage of respondents in a group who selected “not clearly effective or ineffective” was relatively high – and, sometimes higher than the “ineffective” rating. There were three exceptions: Science Council respondents and professional staff were quite clear that the CGIAR and Centers are ineffective in the pursuit of the Agricultural Diversification priority area (50% and 47% ineffective). And, 44% of professional staff rated the CGIAR and Centers as ineffective in the Policies and Institutions research area.

2. Importance Ratings

There are a number of areas where the groups generally agreed with each other about their assessments of importance and/or effectiveness within a narrow range (i.e., within less than ten percentages points of the mid-point), with perhaps one or two exceptions. These exceptions (outliers) are noted clearly in the last column of Figure 1G in this subsection and, with respect to effectiveness, in the last column of Figure 1H in the next subsection.

As Figure 1G indicates, for 75% of the survey questions that asked about importance, three or more groups agreed within 15 percentage points or less (18 questions). Where there are two groups outside of the norm (the “outliers”), all but one pair were relatively consistent with each other in rating importance (5 or fewer percentage points). By contrast, the range of difference for the remaining six questions was very great – from 37 percentage points for private sector partnerships, to 69 percentage points for Challenge Programs.
### Figure 1G: Summary of Importance Ratings by Percentages of Various Dimensions of the CGIAR According to the Section of the Survey Overview

<table>
<thead>
<tr>
<th>Importance ....</th>
<th>Range</th>
<th>High</th>
<th>Low</th>
<th>Outlier(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGIAR &amp; Affiliated Centers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Executive Council</td>
<td>90%-80%</td>
<td>10 points</td>
<td>CP</td>
<td>SC</td>
</tr>
<tr>
<td>Provision of Chair</td>
<td>69%-58%</td>
<td>11 points</td>
<td>BC/CEx</td>
<td>PS</td>
</tr>
<tr>
<td>Provision of Director CGIAR Secretariat</td>
<td>54%-44%</td>
<td>10 points</td>
<td>ExCo/mem</td>
<td>SC &amp; PS</td>
</tr>
<tr>
<td>Housing Secretariat</td>
<td>64%-56%</td>
<td>8 points</td>
<td>CP</td>
<td>SC</td>
</tr>
<tr>
<td>World Bank’s convening power</td>
<td>87%-72%</td>
<td>15 points</td>
<td>ExCo/mem</td>
<td>SC</td>
</tr>
<tr>
<td>Science Council</td>
<td>100%-50%</td>
<td>50 points</td>
<td>SC</td>
<td>CP</td>
</tr>
<tr>
<td>Gender &amp; Diversity – internal</td>
<td>77%-65%</td>
<td>12 points</td>
<td>SC</td>
<td>BC/CEx</td>
</tr>
<tr>
<td>Gender &amp; Diversity – research</td>
<td>84%-74%</td>
<td>10 points</td>
<td>ExCo/mem</td>
<td>PS</td>
</tr>
<tr>
<td>Partnerships</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Alliance</td>
<td>81%-76%</td>
<td>5 points</td>
<td>SC</td>
<td>ExCo/mem</td>
</tr>
<tr>
<td>Center-to-Center Partnerships</td>
<td>94%-83%</td>
<td>11 points</td>
<td>PS</td>
<td>SC</td>
</tr>
<tr>
<td>NARS Partnerships</td>
<td>95%-88%</td>
<td>7 points</td>
<td>SC</td>
<td>ExCo/mem</td>
</tr>
<tr>
<td>ARI Partnerships</td>
<td>81%-72%</td>
<td>9 points</td>
<td>ExCo/mem</td>
<td>CP</td>
</tr>
<tr>
<td>Partnerships with NGOs</td>
<td>58%-53%</td>
<td>5 points</td>
<td>ExCo/mem</td>
<td>BC/CEx</td>
</tr>
<tr>
<td>Partnerships with the Private Sector</td>
<td>78%-41%</td>
<td>37 points</td>
<td>CP</td>
<td>SC</td>
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<tr>
<td>Priority-setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC-led Priority-setting exercise</td>
<td>84%-42%</td>
<td>42 points</td>
<td>SC</td>
<td>BC/CEx</td>
</tr>
<tr>
<td>Allocation of contributions against performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Effectiveness Ratings

There is also agreement about the degree of effectiveness in a number of areas. For more than 78% of the survey questions on effectiveness, there was agreement within 16 percentage points or less for three or more of the groups (14 questions). This drops to 74%, if the effectiveness ratings for the CGIAR and Centers in the five research priority areas are included. The range of difference for the remaining four questions was very great – from 26 percentage points for the priority-setting exercise, to 65 percentage points for the impact of the Science Council on Center research.

Figure 1H: Summary of Effectiveness (& Urgency) Ratings by Percentage of Various Dimensions of the CGIAR According to the Section of Survey Overview

<table>
<thead>
<tr>
<th>Effectiveness ….</th>
<th>Range</th>
<th>High</th>
<th>Low</th>
<th>Outlier(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make more performance-based</td>
<td>39%-29%</td>
<td>10 points</td>
<td>BC/CEx</td>
<td>PS</td>
</tr>
<tr>
<td>Make less performance-based</td>
<td>13%-0%</td>
<td>13 points</td>
<td>ExCo/mem</td>
<td>PS &amp; CP</td>
</tr>
<tr>
<td>Governance</td>
<td></td>
<td>1 point</td>
<td>BC/CEx</td>
<td>CP &amp; SC</td>
</tr>
<tr>
<td>Reforms to CGIAR governance</td>
<td>76%-75%</td>
<td>1 point</td>
<td>BC/CEx</td>
<td>CP &amp; SC</td>
</tr>
<tr>
<td>Reforms (2002-07) to relevance &amp; effectiveness of the CGIAR</td>
<td>100%-53%</td>
<td>47 points</td>
<td>CP</td>
<td>BC/CEx</td>
</tr>
<tr>
<td>Members &amp; Co-Sponsors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Having co-sponsors</td>
<td>100%-53%</td>
<td>47 points</td>
<td>SC</td>
<td>BC/CEx</td>
</tr>
<tr>
<td>World Bank in financial roles (appropriateness)</td>
<td>66%-55</td>
<td>11 points</td>
<td>ExCo/mem</td>
<td>CP</td>
</tr>
<tr>
<td>Challenge Programs</td>
<td>100%-31%</td>
<td>69 points</td>
<td>CP</td>
<td>BC/CEx</td>
</tr>
<tr>
<td>Funding &amp; Financial Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted funding</td>
<td>94%-81%</td>
<td>13 points</td>
<td>PS</td>
<td>SC</td>
</tr>
<tr>
<td>Audit, financial oversight &amp; financial risk management</td>
<td>100%-85%</td>
<td>15 points</td>
<td>CP</td>
<td>BC/CEx</td>
</tr>
</tbody>
</table>
### CGIAR & Affiliated Centers

<table>
<thead>
<tr>
<th>Category</th>
<th>CGR%</th>
<th>Points</th>
<th>Stakeholder</th>
<th>Reforms</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Council</td>
<td>74%-19%</td>
<td>65</td>
<td>SC, BC/CEx</td>
<td>diverse</td>
<td></td>
</tr>
<tr>
<td>Gender &amp; Diversity – internal</td>
<td>59%-43%</td>
<td>16</td>
<td>BC/CEx, ExCo/mem</td>
<td>17%-PS</td>
<td>27%-CP</td>
</tr>
<tr>
<td>Gender &amp; Diversity - research</td>
<td>53%-41%</td>
<td>12</td>
<td>SC, ExCo/mem</td>
<td>0%-CP, 7%-PS</td>
<td></td>
</tr>
</tbody>
</table>

### Partnerships

<table>
<thead>
<tr>
<th>Category</th>
<th>CGR%</th>
<th>Points</th>
<th>Stakeholder</th>
<th>Reforms</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Alliance</td>
<td>30%-20%</td>
<td>10</td>
<td>SC, BC/CEx</td>
<td>0%-CP, 6%-PS</td>
<td></td>
</tr>
<tr>
<td>Center-to-Center Partnerships</td>
<td>33%-22%</td>
<td>11</td>
<td>BC/CEx, PS</td>
<td>10%-CP</td>
<td></td>
</tr>
<tr>
<td>NARS Partnerships</td>
<td>60%-50%</td>
<td>10</td>
<td>BC/CEx, PS</td>
<td>25%-CP, 34%-ExCo/mem</td>
<td></td>
</tr>
<tr>
<td>ARI Partnerships</td>
<td>37%-27%</td>
<td>10</td>
<td>CP, PS</td>
<td>54%-BC/CEx, 56%-SC</td>
<td></td>
</tr>
<tr>
<td>Partnerships with NGOs</td>
<td>33%-20%</td>
<td>13</td>
<td>BC/CEx, CP</td>
<td>10%-ExCo/mem, 13%-PS</td>
<td></td>
</tr>
<tr>
<td>Partnerships with the Private Sector</td>
<td>12%-3%</td>
<td>9</td>
<td>BC/CEx, ExCo/mem</td>
<td>36%-SC</td>
<td></td>
</tr>
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</table>

### Priority-setting

<table>
<thead>
<tr>
<th>Category</th>
<th>CGR%</th>
<th>Points</th>
<th>Stakeholder</th>
<th>Reforms</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC-led Priority-setting exercise</td>
<td>40%-14%</td>
<td>26</td>
<td>SC, BC/CEx</td>
<td>diverse</td>
<td></td>
</tr>
</tbody>
</table>

### Governance

<table>
<thead>
<tr>
<th>Category</th>
<th>CGR%</th>
<th>Points</th>
<th>Stakeholder</th>
<th>Reforms</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reforms to CGIAR governance</td>
<td>47%-0%</td>
<td>47</td>
<td>SC, CP</td>
<td>diverse</td>
<td></td>
</tr>
<tr>
<td>Urgency of need for change</td>
<td>94%-83%</td>
<td>11</td>
<td>PS, ExCo/mem</td>
<td>52%-SC, 57%-BC/CEx</td>
<td></td>
</tr>
<tr>
<td>Reforms (2002-07) to relevance &amp; effectiveness of the CGIAR</td>
<td>22%-8%</td>
<td>14</td>
<td>ExCo/mem, BC/CEx</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

### Members & Co-Sponsors

<table>
<thead>
<tr>
<th>Category</th>
<th>CGR%</th>
<th>Points</th>
<th>Stakeholder</th>
<th>Reforms</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-sponsor performance</td>
<td>56%-13%</td>
<td>43</td>
<td>SC, CP</td>
<td>Diverse</td>
<td></td>
</tr>
<tr>
<td>World Bank performance of financial roles</td>
<td>61%-48%</td>
<td>13</td>
<td>ExCo/mem, BC/CEx</td>
<td>33%-CP</td>
<td></td>
</tr>
<tr>
<td>Challenge Programs</td>
<td>28%-13%</td>
<td>15</td>
<td>SC, BC/CEx</td>
<td>82%-CP</td>
<td></td>
</tr>
</tbody>
</table>
### Funding and Financial Management

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>Points</th>
<th>Group</th>
<th>Group</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrestricted funding</td>
<td>9%-0%</td>
<td>9</td>
<td>ExCo/mem</td>
<td>SC</td>
<td>None</td>
</tr>
<tr>
<td>Audit, financial oversight &amp; financial risk management</td>
<td>38%-23%</td>
<td>15</td>
<td>CP</td>
<td>ExCo/mem</td>
<td>None</td>
</tr>
</tbody>
</table>

### 4. The View from the Scattergrams – Some Observations

The scattergrams give still another view of the differences between the various groups and the larger survey population (Appendix 3, Figures A - G). Many of these have already been noted in Figures 1 G-H, above. It is not the intention here to do an exhaustive analysis, but to point out only some of the things they appear to tell us about the perspectives of each respondent group.

**Executive Council and other Members**

Because Executive Council and other member respondents were the most numerous (91 individuals or 45% of respondents), it is important to recognize that their opinions will have dominated response results (Appendix 3, Figure B). For this reason, it is important to examine the different groups separately as well as all responses together. In addition, the opinions of Executive Council and other members from the developing countries were sometimes different from those of developed country representatives (Appendix 3, Figure C).

The following observations are made with the above comments in mind:

First, there is a clear consensus that all aspects addressed in the survey are important to the success of the CGIAR network (mean scores from 3.66 to 4.75). Secondly, there is a very wide range between the lowest and highest effectiveness ratings (from 2.44 for private sector partnerships to 3.48 for the impact of Science Council on Center research). Thirdly, only Science Council respondents rated the importance and effectiveness of their impact on Center research higher, and most other groups gave it much lower ratings. Finally, it is worth noting that the group’s opinion about the importance and inadequacy of unrestricted funds is shared across the board.

With respect to partnerships, the Executive Council/members group sees NARS, center-to-center and ARIs partnerships as very important but, with the exception of the ARIs partnerships, not very effective. Partnerships with NGOs and the private sector received relatively poor ratings for both importance and effectiveness. Note that the general neglect of private sector partnerships seems to be a pattern across the network, with only the DG/Center executives group giving them a positive importance and effectiveness.
assessment \((m = 3.8 \text{ and } 2.44, \text{ respectively})\). Respondents from developing countries agreed fairly closely with Executive Council and other members from the developed countries with respect to the importance and effectiveness of the several partnership relationships.

It is interesting that Executive Council/member respondents thought that the World Bank as a co-sponsor is less important but more effective than the other co-sponsors. It is not surprising, however, that the Executive Council should have high expectations with respect to governance performance, which is their primary role in the Network. Nor is it surprising that they are concerned about CGIAR financial management, as their interest likely reflects the focus of their own jobs as public servants, managers, or business people (importance \(= m = 4.48 \text{ and } 4.75, \text{ respectively})\). Unfortunately, they have not found either governance performance or financial management to be especially effective \((m = 2.74 \text{ and } 2.83)\).

In general, representatives from the developing countries in this survey population gave somewhat higher effectiveness ratings except with respect to partnerships, which they gave ratings similar to the larger Executive Council/member group. For example, the developing country sub-group judged the Science Council to be somewhat more effective than the larger group at helping Centers to enhance the quality, relevance and impact of their science. They also gave overall financial management, the Executive Council, the World Bank and other co-sponsors higher effectiveness ratings than did the group as a whole \((\text{questions } 7B, 10B, 11B \text{ and } 13B)\). It is not clear why this is the case, based on the survey responses alone.

**Board Chairs and Center Executives**

Board chairs and Center executives contributed about a quarter of total respondents. They have an optimistic view of Center partnerships (see Appendix 3, Figure D). Given that partners are absolutely critical to Center performance, this is not surprising. Board chairs and Center executives clearly think that their partnerships with NARS and the ARIs are effective \((m = 3.57 \text{ and } 3.5, \text{ respectively})\). They also believe that Center-to-center partnerships and those with NGOs are effective, but somewhat less so \((m = 3.1 \text{ each})\). Although partnerships with the private sector are given a relatively high importance rating \((m = 3.96)\), the group considers them to be marginally ineffective \((m = 2.6)\). As for the Alliance – there is a general consensus across groups that it has been relatively ineffective (although different people disagree about this in its details).

The board chairs and Center executives are clearly not impressed with the importance and effectiveness of the Challenge Programs – to which they have given a significantly lower rating than given by any of the other groups \((m = 3.0 \text{ and } 2.5)\). Similarly, they do not think very highly of the Science Council’s efforts at priority setting \((m = 3.2 \text{ and } 2.6)\), or they believe it has had little impact on the effectiveness of Center research \((m = 2.7)\).
Co-sponsors other than the World Bank (Question 13), Governance reforms (Questions 9 and 21), and the Executive Council (Question 10) also received poor effectiveness ratings (m = 2.47, 2.46, 2.27 and 2.57, respectively).

**Challenge Programs**

The Challenge Programs are the “new kids in the neighborhood” (Appendix 3, Figure E). The fact that they appear to think a lot of themselves may simply be a sign of their own feeling of insecurity within the Network. There may be good reason for this however, as there is a strongly-stated belief on the parts of some of the other groups – although certainly not all – that they are not fulfilling their original promise.

Partnerships are also very important to the Challenge Programs. With respect to importance, Challenge Program respondents gave mean scores from a high of 4.75 (NARS) to a low of 4.11 (private sector partnerships). However, the only partnerships this group believes are effective are those with ARIs (m = 3.27). They also though the Alliance deserved a low effectiveness ratings (m = 2.63).

Challenge Program respondents gave the Executive Council (Question 10), World Bank (Question 11), financial management (Question 7), and the impact of the Science Council on Center research (Question 1) positive effectiveness ratings (m = 3.5, 3.22, 3.13 and 3.09, respectively).

One final point: as Figures 1 G-H indicated, Challenge Program opinions were often out of line with those of other groups, and comparing the figure for the Challenge Programs with those of the other groups confirms the observation.

**Science Council**

The very first impression is that the Science Council – in stark contrast to the other groups – has a much more optimistic outlook about the current state of the CGIAR System and Centers (Appendix 3, Figure F). The sole exceptions are unrestricted funds (Question 6) and governance reform, 2002-07 (Question 17), which is in line with the opinions of the other groups.

With respect to partnerships, the Science Council judges them all to be important (from M 3.29 – private sector, to 4.11 – NARS), and from marginally effective to effective (from m = 2.94 – NGOs, to m = 3.56 – ARIs). It is striking that private sector partnerships are slighted, given the predominance today of private sector activity in agricultural research.

The Science Council gave the co-sponsors other than the World Bank (FAO, FAD and UNDP) the highest combined importance and effectiveness ratings of those given by any
of the groups (importance, $m = 4.72$ and effectiveness, $m = 3.5$). This is in stark contrast to the importance and effectiveness ratings given to these co-sponsors by board chairs and Center executives. This may be, in part, because the Science Council is housed in the FAO offices in Rome.

Finally, the Science Council thought that the Challenge Programs deserves relatively high ratings in comparison with the other groups – in importance, $m = 3.75$; and effectiveness, $m = 3.28$.

**Professional Staff**

In contrast with the Science Council, the professional staff appears to be disenchanted with the CGIAR partnership and network (see Appendix 3, Figure G). Only three dimensions were judged to be effective: NARS partnerships; the World Bank as a co-sponsor, and the Challenge Programs ($m = 3.38$, $3.33$ and $3.13$, respectively). While all dimensions were considered to be important, there was a considerable range, from $m = 3.29$ for private sector partnerships to $m = 4.71$ for financial oversight and risk management. It would appear that, again, partnerships with private sector companies are undervalued.

Professional staff also appear to have an especially low opinion of the effectiveness of the Alliance, NGO and private sector partnerships, the impact of the Science Council on Center research, co-sponsors other than the World Bank, governance reforms (2002-2007), and the gender and diversity programs (mean score range from 2.33 to 2.56). As with the other groups, the lack of growth in restricted funding is a concern.

**Concluding Remarks**

The Survey has generated a great deal of data, and large numbers of perceptive comments and good ideas from respondents. This overview of Survey results has only touched the surface. Nevertheless, the time has come to conclude.

These observations point to what the author believes are the five most significant areas on which the CGIAR, its actors and stakeholders should focus their efforts, in the best interests of the Network overall and of those who are related to it or depend on it. These views are supported only by information taken from survey responses, and not on in-depth knowledge of the CGIAR System itself.

1. It is Imperative that the CGIAR attack the effectiveness deficits, giving priority to some key dimensions, such as Executive Council decision-making, partners and co-sponsors, the role of the Science Council and its relationship with the Centers, and funding and financial/risk management. A good place to start is where most or all of the groups agree that the dimension is important or very important, but judge effectiveness to be low. Dealing with the effectiveness deficit will be a great deal more difficult where
opinions are highly polarized – for example, with respect to the Science Council’s impact on Center research, the priority-setting exercise or the future of Challenge Programs.

2. **WHY** the CGIAR and Centers are effective in delivering against some of the research priorities but not others is unclear from survey responses alone. Getting a clear “fix” on this is the first step toward increasing effectiveness with respect to agricultural diversification, policies and institutions, and sustainable resources.

3. Mandates, roles and responsibilities, and authorities must be clarified and clearly communicated to CGIAR actors and key stakeholders, including co-sponsors and outside partners. Based on many of the comments, this may mean strengthening, changing or re-distributing current responsibilities, or taking on new ones. It is also important that those who have responsibilities and the corresponding authorities are strongly committed to fulfilling them to the best of their abilities. Otherwise, things are going to start (or continue?) to “fall through the cracks,” to the great detriment of the Network’s effectiveness from both management and program perspectives, and with respect to its ability to achieve desired results and outcomes.

4. Because the CGIAR, Centers and Challenge Programs are so dependent on donors and research partnerships, it is very important that these relationships be well-managed. Survey respondents gave a number of suggestions on how this should be done (see Sections 4.0 on partnerships; Section 7.1 on the FAO, UNDP and IFAD, and Section 9.1 on unrestricted funding). Special attention needs to be paid to partnerships with NGOs and the private sector, and to convincing funders and co-sponsors that they ought to contribute unrestricted funds in addition to what they already give to projects and targeted programs.

5. There should be a strong, sustained commitment to the development, implementation and maintenance of sound management structures and practices on the parts of all those involved in the CGIAR (managers, scientists, support specialist, partners, co-sponsors and funders). These include:

- Having a shared vision appropriate to Partnership/Network values and that takes into account the environment in which the Network must function;

- Putting in place a governance structure that is effective and compatible with the needed balance between centralization and stability, on the one hand, and decentralization and flexibility, on the other;

- Doing strategic planning; developing and implementing flexible strategic plans and approaches (e.g., for the Network overall, for partnering, for pursuing co-sponsors, donors, etc.).
• Making sure the right people are in place (centrally and in the Centers) with the knowledge, capacity and commitment to manage well (or, who arrange to have access to such individuals);

• Making effective decisions (rational, defensible, based on knowledge, experience and sound risk assessment, as well as on good instincts and common sense). Associated with this, making sure that decision-making responsibilities and the corresponding authorities are assigned to the most appropriate CGIAR actor(s);

• Supporting clear and open communications between and among CGIAR actors and stakeholders’;

• Having a workable and informative performance assessment system;

• Making sure the basic elements of management control and effective resource management (of financial, personnel, other resources) are in place, and that they are compatible with the values, needs and character of the CGIAR and the Centers; and, finally

• Remembering, always, that good management is never an end in itself, but is done in support of the Network’s pursuit of desired results and outcomes.
1.0 Introduction to Survey

In February 2008 the Independent Review Panel commissioned a survey of key CGIAR actors and stakeholders. The survey was only one instrument of data collection. It complemented extensive interviews and visits to Centers by Panel Members.

The questions covered in the survey were derived from the Terms of Reference of the Independent Review Panel. The questionnaire was pre-tested with a small sample drawn from the target groups. This document summarizes the survey results.

1.1 Survey Sampling Frame

The survey population was approximately 225 persons drawn from five groups of people who were active with the CGIAR from 2001 to 2007. The groups were:

- The Executive Council and Members;
- Board chairs and Center executives;
- Challenge Program leaders;
- The Science Council; and
- The CGIAR Professional Staff.

1.2 Response Rates

The overall rate of response for the survey was just under 85%. Response rates by stakeholder group are summarized in Figure 2.

Figure 2: Response Rates – Overall & by Stakeholder Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Population</th>
<th># Respondents</th>
<th>% Responding in Category</th>
<th>% Total Respondent Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>All respondents</td>
<td>237</td>
<td>201</td>
<td>84.81%</td>
<td>100%</td>
</tr>
<tr>
<td>Executive Council / Members</td>
<td>109</td>
<td>91</td>
<td>83.49%</td>
<td>45.27%</td>
</tr>
<tr>
<td>Board chairs &amp; Center executives</td>
<td>60</td>
<td>54</td>
<td>90.0%</td>
<td>26.87%</td>
</tr>
<tr>
<td>Challenge Program</td>
<td>16</td>
<td>15</td>
<td>93.75%</td>
<td>7.46%</td>
</tr>
<tr>
<td>Science Council</td>
<td>27</td>
<td>21</td>
<td>77.78%</td>
<td>10.45%</td>
</tr>
</tbody>
</table>
1.3 Survey Process and Methodology

Several iterations of the survey questionnaire were developed by the Independent Review Panel in consultation with Change Management team members and others. A working version was pre-tested with 12 individuals from across the CGIAR System. The final version was then developed and sent by email to the initial contact list.

Participants were guaranteed confidentiality, even from the Review Panel, to ensure that they could respond to the questions as freely as they wished. To achieve this, a separate consulting firm with no connection to the CGIAR or to the Review Panel was engaged to make all contacts with respondents, and to ensure that any individual identifiers were eliminated.

To help ensure a high response rate, potential participants were contacted a number of times by email and/or telephone.

- An initial list of 330 people was checked for current addresses. 237 could be contacted by email or telephone and these became the sample for the survey.

- A second email was sent as a reminder to those who had not yet responded at the beginning of March, which was followed-up by a second prompt call, if needed.

- Finally, those who had promised that they would respond, but who had not already done so, were pursued by email and telephone a third time during March and April.

Survey results were recorded and collated when received, and statistical profiles developed for each survey question by total population and by individual respondent group. These profiles have provided data for a large number of graphs and figures which depict survey results.

1.4 Overview of Questions

There are 24 questions in total, most with a number of sub-questions, resulting in a total of 71 distinct questions in six categories: Science, Funding, Governance, Co-sponsors, Partnerships, and Reform and the capacity to reform.

The questions are of three types:

- Scaled Questions, which compare the importance of an issue with the effectiveness or adequacy with which it is being addressed;

| Professional Staff | 25 | 20 | 80.0% | 9.95% |
• Open-ended multiple choice questions, which provided respondents with a choice of possible actions which might help in dealing with the issue(s) identified and the opportunity to provide additional comments; and

• Essay-style questions that provide no guidance so as to allow respondents the fullest possible freedom to respond (questions 9 c, and 22-24).

More than 300 pages of comments, across all topics and types of questions, were received.
2.0 CGIAR and Centers’ Research Priority Areas

The CGIAR, Centers and Science Council have identified five priority areas (and twenty sub-priority areas) to guide research. The five main priorities are:

- Sustaining biodiversity for current and future generations;
- Genetic improvements to produce more and better food at lower cost;
- Agricultural diversification and help for farmers so that they can take advantage of emerging opportunities for high-value commodities and products;
- Sustainable management of resources (water, land, forests); and
- Improving policies and facilitating institutional innovation

Questions 3 A-E asked survey respondents to judge how effective the CGIAR and Centers have been in each of these five priority areas.

2.1 Centers’ Effectiveness in Working in Research Priority Areas

Over 80% of all respondents rated the CGIAR and Centers as working effectively/very effectively in the areas of “sustaining biodiversity” and “genetic improvements” (81.61% and 81.92%). “Sustainable management of resources” was lower at 51% effective/very effective, followed by “improving policies / facilitating institutional innovation” at 32% and “agricultural diversification” at 23%.

The respondents most likely to be directly concerned with meeting these research priorities are those responsible for managing the Centers (Board Chairs, Directors and Deputy Directors General), Science Council members and those involved in the Challenge Programs. Figure 3 illustrates how effectively these sub-groups believe the CGIAR and the Centers are working in the five priority areas.
2.2 Issues and Respondent Comments

The most commonly-noted issues with respect to the five research priority areas, in order of frequency were:

- Lack of sufficient financial support for work on these priorities;
- Lack of CGIAR System support for innovative research and approaches (e.g., research different from traditionally-supported types of projects or areas of research);
- Whether some of the priorities are appropriate for the CGIAR system because they are already funded by business, think tanks and others (e.g., policy & innovation); or the System itself lacks experience with some of the areas (e.g., with high value crops); and
- The relationship (or conflict) between scientific research in academic perspective and its actual impact on the ground in recipient regions, countries and communities.

Some respondents also noted that judging effectiveness may be difficult – in the “improving policies and facilitating institutional innovation” research area, for example.
3.0 The CGIAR and its Affiliated Centers

The CGIAR is a consultative group of 64 members from governments, international organizations and some foundations, and 15 Agricultural Research Centers across the world. It meets once a year at an Annual General Meeting, and is supported by an Executive Council, to which it has delegated limited decision-making responsibilities.

Several questions addressed the importance and effectiveness of the CGIAR and its affiliated Centers, and how they might be changed or improved individually and/or as an inter-related System.

3.1 The Executive Council

The 22-member Executive Council meets twice a year, and has several working committees (e.g., the recently-revived Ad Hoc Finance Committee). Members are selected from the group of CGIAR members and serve for two years. The Survey questions about the Executive Council centered primarily on its functioning, composition and mandate – and especially on its importance to System governance and decision-making.

Importance and Effectiveness

Nearly 75% of all respondents rated the Executive Council as important (43%) or very important (32%) to System governance. This assessment was relatively consistent across the groups with one exception. The Board Chair/ Center DGs sub-group rated the Executive Council (ExCo) importance nearly 16 percentage points lower than all respondents taken together (59%) and 23 percentage points lower than the level at which ExCo/Members sub-group rated themselves (82%). This reflects a major disconnect between the way the donors and the doers see themselves.

This difference is also reflected in the fact that approximately 29% of all respondents think the Council is effective or very effective, whereas about the same number (32%) believe it is completely or marginally ineffective. Figure 3 compares Executive Council importance and effectiveness by sub-group.

The professional staff in the CGIAR System also tend to have a low opinion of the effectiveness of the ExCo. (See Figure 4)
Suggestions for Improvement and Respondent Comments

Question 10 C offered five possibilities regarding how the mandate, composition or functioning of the Executive Council might be improved. Many respondents commented on these possibilities and many added others.

The most important issues raised were:

- **Council mandate and responsibilities**  A number of respondents questioned whether the Council’s mandate and responsibilities are clear and/or well-communicated to and understood by others in the system and by outside stakeholders.

- **Council decision-making**  More than 40% of respondents commented on the role (or lack thereof) the Executive Council plays in decision-making or on how such decision-making should be done (e.g., broadly or narrowly collaborative, by sub-committees, etc.). Two options given in the question also focused on Council decision-making:

  (1) The Council should use formal votes and make binding decisions (nearly 50% of ExCo/member, BC/center executive and professional staff respondents agreed. Fewer Science Council and Challenge Program respondents agreed; and

  (2) More power should be given to major shareholders in Council decision-making. More than 40% of BC/center executives and professional staff respondents
agreed, and significantly fewer ExCo/member, Challenge Programs, and Science Council respondents (26%, 11% & 29%).

- **Representation.** Three options given in the question related to increasing the representation on Council: agreed by developing countries’ representatives (44% all respondents), constituency representatives (40.84% all respondents), and scientists (34% all respondents). In addition, about 20% of those offering additional comments added civil society, “beneficiaries,” development specialists, and managers to the list of those who should be included in the Executive Council.

The lack of representation of some significant group was considered to be an important issue for almost two-thirds of respondents (50-68% of respondents). However, there were differing opinions about which group should have more representation. For example, the Science Council and Board chairs/center executive sub-groups think that increasing the representation of scientists is of primary importance (rated first at 53% and 49%, respectively), while 79% of the Executive Committee & Members considered it the least important of the choices. Again the difference of opinion between the donors and the doers is striking.

- **Other significant issues.** Three additional issues were raised by respondents with some frequency:

  1. The nature and overall effectiveness of the Council’s relationship with other CGIAR actors and stakeholders (about 10% of comments).

  2. The mechanics of Council “operations” – for example, poor meeting practices; participants coming unprepared; the best people are NOT rotated onto Council; etc. Vague and non-transparent decision making practices.

  3. Lack of vision and creativity in the CGIAR and Executive Committee (noted explicitly by two respondents, but incorporated into or assumed by several other comments).

### 3.2 Provision of the CGIAR Executive and Secretariat, and the World Bank’s convening power

The World Bank provides the CGIAR with a chairperson (also the Chair of the Executive Council), and a Bank staff member is the Director of the CGIAR Secretariat. The CG Secretariat is housed in Bank offices in Washington DC. The Bank also uses its power to convene meetings, consultations and so on, to promote the interests of the CGIAR.
Respondents were asked to comment on the importance of these roles to the CGIAR, and suggest ways in which performance might be improved.

**Importance that the World Bank fulfil these roles**

There was significant difference of opinion about the importance of the World Bank providing the Chair, the Director and housing for the Secretariat.

a) Provision of the Chair, Director of the Secretariat and Secretariat office space

- Between 50% and 69% of respondents in four groups think it is important or very important that the Bank provide the CGIAR chairperson. Only 36% of Challenge Program representatives agreed, however.

- Many respondents commented that: (1) the chair needs to be a *working* chair, with enough time to do the job well; (2) the Chair need not be supplied by the World Bank, but should be someone who can command respect; and (3) having the Bank supply the chair may not always be in the best interests of the CGIAR.

- About half the respondents (between 44% and 54%) in four groups think it is important or very important that the Bank provide the director of the Secretariat. However, only 28% of Challenge Program respondents think this is important.

- About the same proportions (somewhat more than half) of all respondents feel it is important or very important that the Secretariat is housed in the World Bank. However only 42% of Board chairs/center DGs agreed.

b) Use of the Convening Power

- Eighty-two percent (82%) of all respondents believe that it is important or very important that the Bank use its convening power to the benefit of the CGIAR. From 68% (Science Council) to 87% (ExCo/members respondents) agreed with this assessment.

- One respondent commented that success in this area should not depend solely on the abilities and personality of the individual(s) fulfilling the role, but also on how it is structured and supported. Another respondent suggested that the cost of this service should be paid by all donors.
Suggestions for Improvement and Respondent Comments

Respondents were given four possible ways in which the World Bank performance might be improved with respect to these roles:

- About half of respondents agreed that a CGIAR legal entity should be established that would be somewhat more autonomously from the World Bank (57% all respondents). (51% to 67% of respondents in the five sub-groups agreed).

- About half of most sub–groups of respondents agreed that there is an inherent conflict between the Bank’s roles as major donor and manager of the CGIAR Secretariat, Directorship and Chair (48% all respondents). Four of the sub-groups rated this item in the 40-55% range. Science Council respondents were the one exception, with only 18% agreeing that there is a problem.

- Fewer than half of respondents thought it a high priority to maintain two-way exchanges between World Bank regional, country and sector strategists in agriculture and rural development (41% all respondents). Fifty-three percent (53%) of Board chair/center executive respondents selected this item, as did 47% of Science Council respondents.

- A similar picture emerges in regard to mutual gains in knowledge management (39% all respondents). From 28% (ExCo/Mem) to 50% (Challenge Program) of respondents selected this item.

- Sixteen percent (16%) of Board chairs/center executives think that no change is needed in the established roles.

In the comments attached to the question, respondents focused primarily on the Bank’s roles and responsibilities. The most important and/or frequently-stated of these were:

- A lack of clarity about the Bank’s current roles and responsibilities.

- The need for change in these roles, how they are delivered, and how the Bank relates to other parts of the CGIAR System. Comments included: give Bank more oversight responsibilities; CGIAR director should not act like a CEO but be consultative and coordinating; the Bank should play NO role in CGIAR’s domain of work and research; the CGIAR should be more independent of Bank influence; the Secretariat and the Alliance play parallel or competing roles in the system; etc.

- A need for greater transparency and professionalism – especially the need to avoid conflicts-of-interest (in both appearance and reality). The most common example
noted is perceived conflicts between the Bank’s donor role, oversight, and governance responsibilities (this is also addressed in Section 7.2).

3.3 The Science Council

The Science Council acts as an independent scientific advisory body to the CGIAR. Its role is to help centers enhance the quality, relevance and impact of their research objectives. The importance of this role and whether the Science Council is fulfilling it effectively were the subjects of Questions 1 A-C.

Importance and Effectiveness

Eighty-three (83%) of all respondents think the Science Council is important with respect to its impact on Center research (33%) or very important (50%). Science Council respondents agreed with this assessment (21% important; 79% very important). Respondents in the other groups gave the role of the Science Council an importance rating of from 92% (ExCo/Members) to 50% (scientists involved with the Challenge Programs).

Whether the Science Council is effective in this role is less clear. Seventy-four percent (74%) of Science Council respondents think it is effective in helping the Centers enhance the quality, relevance and impact of their research. However fewer than 50% of all respondents agreed with this assessment, as indicated in Figure 5, below. And a large minority believe that the Science Council is ineffective. As one can see from Figure 5 there is a significant difference of opinion about the Science Council.

Figure 5: Comparison of Effectiveness Ratings of the Science Council by Group of Respondent
Suggestions for Improvement and Respondent Comments

The major areas of concern over the importance and effectiveness of the Science Council fell into five inter-related categories:

- **Mandate, roles and responsibilities** This is not surprising, given the nature of the questions asked about the Science Council. Respondents offered over 130 comments on how the Council’s mandate and/or performance might be improved. The vast majority of comments had to do with how the respondent interprets the Council’s mandate and roles/responsibilities, whether these should be changed or strengthened, and how they should be implemented.

Because the suggestions were so wide-ranging, diverse and sometimes contradictory, only a few are noted here. The interested reader should read them in total. Respondents thought that the Science Council should (a) be more normative and strategic and less operational in its focus; (b) have “power” to make Centers focus on core needs; (c) should be advisory, only; (d) should be a proactive body for change; (e) should design, implement and oversee the system-wide and challenge programs; (f) be responsible for promoting joint research projects; (g) make sure that the Centers are doing good science that is also relevant to the ultimate beneficiaries in the developing world; and (h) have responsibility for strengthening the ethics review of research proposals (as per Question 5 of the survey).

Some of these concerns were also reflected in four of the suggestions given in Question 1C about how to improve the Science Council’s performance:

- **The Science Council should offer guidance and advice to Centers (53% all respondents).** Fifty-five percent (55%) of Science Council respondents selected this option, as did between 56% (ExCo/Mem) and 38% (professional staff) of respondents in other groups.

- **Science Council’s role in facilitating research partnerships should be strengthened (52% all respondents).** Forty-five percent (45%) of Science Council respondents agreed with this option, as did 77% of Challenge Program respondents.

- **Science Council is conflicted between its support and evaluation roles (30% all respondents).** About 1/3 of respondents in four of the groups agreed with this statement. Twenty percent (20%) of Science Council and 46% of Challenge Program respondents selected it.
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- Science Council should have a greater role in resource allocation (25% all respondents). A relatively small number of respondents in each sub-group selected this option, ranging from 30% (Science Council and ExCo/Mem) to 8% (Challenge Program scientists).

- Relationships and coordination with other actors in the System, outside partners and stakeholders. The most common concern, here, was whether the relationship with the Centers is as constructive as it could be. Some commented that it is too bureaucratic. Others thought that some of the work of the Science Council is duplicated by either or both of the Alliance and the CGIAR Secretariat.

- Insufficient or inappropriate resources. Several respondents commented on the nature, quality and quantity of Science Council personnel (scientists and support staff). Some questioned whether those currently in the Science Council possess the knowledge and skills it needs to fulfil its mandate, role and responsibilities -- however these may be defined. Others praised member and staff quality and commitment. Some wondered whether Council membership is sufficiently aware of “CG research realities” to do an effective job. The lack of first hand knowledge of the Centers was noted by some. Still others noted that the Council’s organizational structure and financial resource levels do not allow it to fulfill even its current mandate let alone take on greater responsibilities such as visiting Centers regularly.

- Creativity, innovation and appropriate risk-taking. Several respondents commented that the Council is not sufficiently creative or innovative, lacks imagination, and/or is too conservative when it should be proactive in encouraging and supporting innovative approaches to research. This is not necessarily the consensus. In fact there is no clear consensus.

- The evaluation of research. One of the options given to respondents about how Science Council performance might be improved focused on its responsibility for evaluating research. Forty percent (40%) of all respondents agreed that some research is under-valued by the Council (although respondent comments did explain this further). This was the most frequently-selected option by board chairs and center DGs (46% of respondents), Challenge Program scientists (77%), and professional staff (50%). Only 20% of Science Council respondents agreed with the statement that there might be a problem with the approach of the Council to evaluation.

### 3.4 Gender and Diversity

The survey asked about gender and diversity in two contexts: (1) internal to the CGIAR system in the form of the Gender and Diversity Program; and (2) as these issues – especially gender – are incorporated into the work of the CGIAR and the Centers. In each case,
respondents were asked to assess importance and effectiveness, and comment on how the current situation might be improved.

*The Gender and Diversity Program* focuses on how gender and diversity are handled within the CGIAR and the Centers, including staffing and professional development activities. It was administered as a unit of the System Office but after receiving a major grant from the Bill and Melinda Gates foundation has become an autonomous program.

The *Participatory Research and Gender Analysis Program* is concerned with gender issues as they affect or are incorporated into agriculture research programs.

In addition, individual Centers may have their own gender and diversity activities and programs.

**Importance and Effectiveness**

Seventy-four percent (74%) of all respondents judged gender and diversity issues as important or very important to the effectiveness of the CGIAR and Centers. Positive opinion about the importance of the integration of gender issues into research programs was slightly higher at 79%. The sub-groups were generally in line with this assessment.

Responses were mixed about whether the CGIAR and Centers have been effective in achieving gender and diversity objectives. Only forty-five (45%) of all respondents believe that the objectives have been achieved in an effective way. A significant difference of opinion was again evident. There was a 32-point gap between the low and high values (27% of Challenge Program respondents, to 59% of board chair/center executive respondents). Forty-three percent (43%) of the ExCo/Members and 17% of the professional staff of the System thought that the CGIAR and Centers have been effective in achieving gender and diversity objectives.

Only 35% of all respondents thought that the Centers have been effective in incorporating a gender perspective into research and development activities, and another 43% of all respondents chose “not clearly effective or ineffective”. There was also a significant difference of opinion among the sub-groups. Around 50% of Science Council and board chair/centre executive respondents thought the Centers have been effective in incorporating a gender perspective (46% and 53%), whereas only 7% of professional staff and 0% of Challenge Program leaders agreed. It is interesting that 80% of Challenge Program leaders opted for “not clearly effective or ineffective,” and half of the professional staff thought the Centers have been ineffective at incorporating a gender perspective into research and development activities.

The relationship between importance and effectiveness for these two perspectives on gender and diversity are depicted in Figure 6, below.
Figure 6: Gender and Diversity Programs Importance & Effectiveness by Group of Respondents

Suggestions for Improvement and Respondent Comments

a) CGIAR/Center approaches to achieving internal program objectives. Two options were listed in Question 14 C:

- Implement gender and diversity principles more strongly (56% of all respondents agreed). The percentage of respondents who selected this option ranged from 34% (Board chairs/center executives) to 78% (professional staff). Sixty-three percent (63%) of the ExCo/Mem population sub-group agreed.

- Collect system-wide gender and diversity human resources information in disaggregated form (53% all respondents agreed). Seventy percent (70%) of Challenge Program respondents and 76% of Science Council respondents agreed, while only 44% to 54% of those in the other groups agreed.

Forty-six percent (46%) of board chairs/center executives thought that no change in the current situation is needed; 27% of Science Council respondents agreed.

The majority of comments made in relation to Question 14 C fell into the following categories:
b) Incorporating a gender perspective into research and development. Question 14 E offered respondents five options to begin the “discussion”:

- Provision of training and guidance materials / best practices on gender and diversity in agriculture (59% all respondents agreed that this is a priority). Between 50% (board chairs/center executives) and 69% (ExCo/Mem) of subgroup respondents supported this option, with one exception (Science Council – 39%).

- The program should deal with other diversity and equity issues in addition to gender (46% all respondents agreed). Forty-two percent (42%) to 54% of respondents from four sub-groups selected this option. It was selected by 35% of professional staff.

- There should be a written gender policy and strategy to cover CGIAR and the Centers (43% of all respondents agreed). Only thirty percent (30%) of board chairs and centre executives selected this item, compared with 65% of professional staff, and 50% of respondents in the other groups.

- More gender disaggregated data and performance indicators should be collected in the CGIAR and Center performance measurement system (43% all respondents agreed). Twenty percent (20%) of board chairs/center executives think this is a good idea (lowest), in contrast with Challenge Program leaders.
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and the professional staff at 68% and 59%, respectively. Forty-four percent (44%) of Science Council respondents indicated they are in favour of this option.

- Establish specific accountabilities system-wide to address the needs of rural women and girls (41% all respondents agreed). The board chair/center executive (34%), and the Science Council (39%) sub-groups selected this option least frequently. It was most popular with Challenge Program and professional staff respondents (50% and 59%).

Issues about the Participatory Research and Gender Analysis Program generally paralleled those discussed with respect to the internal CGIAR program, especially in two areas. (1) Which System actor should be responsible for designing, developing, implementing and assessing any gender (diversity) policies and programs in agricultural research and development? (2) A gender (and diversity) perspective must become part of corporate culture – in this context, this means that the perspective should be fully integrated into research priority-setting and planning, and performance evaluation as well as into individual projects.

Some other interesting comments were:

- The visible support of co-sponsors and partners for the incorporation of gender (and possibly diversity) approaches and perspectives would be very helpful;

- All projects and programs should be evaluated from the perspective of the impacts they have on women and children, in recognition of the fact that women are the primary actors in agriculture in many countries and cultures;

- “We have talked enough – now is time for action!” “Move on from planning and principles to implementation”;

- A special fund should be sent up for research projects with strong gender-based elements; and

- There is a real lack of expertise in using a gender perspective to do sound research.
4.0 Partnerships

Questions 15 through 20 asked respondents to assess the importance and effectiveness of the several partnerships in which the CGIAR and/of the Centers are involved, and what might be done to improve these relationships. Possible CGIAR and Center partners include *inter alia*: National Agricultural Research Systems (NARS), Agricultural Research Institutes (ARIs), non-governmental Organizations (NGOs), and the private sector.

Respondents were also asked to assess the importance and effectiveness of Center-to-Center partnerships; and the Alliance which helps to facilitate collaboration among the Centers, and with partners.

4.1 The importance of partnerships

Partnering is the essence of the CGIAR System. The CGIAR was founded in 1971 as a “strategic partnership of countries, international and regional organizations and private foundations” to support the work of fifteen international agriculture research centers (2006 Annual Report). Over the intervening 37 years, the number, variety and complexity of these partnerships have grown significantly.

4.2 The Alliance

The Alliance was put in place by the Centers in 2005 to facilitate joint initiatives that should, in turn, increase the impact of the Centers’ ability to alleviate poverty in a more effective and efficient manner. The Alliance also provides the Centers with some joint services. Survey participants were asked to assess the importance of the Alliance to the CGIAR and the affiliated Centers and whether it has been effective in achieving its objectives. A third question asked participants to comment on the future of the Alliance.

Importance and Effectiveness

Seventy-two percent (72%) of all respondents think the Alliance is important to CGIAR System. But only 19% believe it has been effective in achieving its objectives and another 44% reported that they are unsure about whether the Alliance is effective or not – leaving 37% who believe that it has been ineffective. Figure 7 depicts the importance and effectiveness ratings for the Alliance by population sub-group. The consistent gap between importance and effectiveness ratings is striking.
The Future of the Alliance

The options given in Question 15 C dealt, in one way or another, with the Alliance’s roles and responsibilities now and in the future.

- The continuing need for a coordinated approach by the Centers. The Alliance was created to fill this role. Whether the Alliance remains in its current form, is altered, disbanded or merged with another CGIAR-related “corporate entity,” the need for joint action will continue to be critical for the success of the CGIAR and the Centers.

- Two options dealt with the survival of the Alliance as an entity. (a) Forty-one percent (41%) of all respondents thought that having the Alliance join the Executive Council to form a new joint CGIAR Board might be a good idea. Forty-eight percent (48%) of Centers’ board chairs and center executives and 25% of the professional staff agreed. (b) About a quarter of all respondents believe that the Alliance is temporary (range = from 11% / Science Council to 30% / board chairs and center executives). There is no clear consensus.

- It was also suggested by some that: (a) the Alliance’s administrative functions should be merged with those of the Systems Office (55% of all respondents agreed); or (b) it should be strengthened and given more (unspecified) responsibilities (46% all respondents); or (c) its mediation and other roles should be strengthened (56% all respondents). Again opinion is polarized.
‘Form follows Function’. Assuming the Alliance remains in place, what organizational form it might take and how it should be organized was also discussed. Should it continue to be a creature of the Centers, “at their service”? Or should it become a legal entity with a broader membership? Does it need an executive director and board independent of the Centers to be effective? And, so on.

4.3 NARS, ARIs, NGOs and private sector partnerships

Importance and Effectiveness

(a) Partnerships with National Agricultural Research Systems (NARS)

A National Agricultural Research System is the collection of public and private institutions in a given country that are devoted, full or part-time, to agricultural research and promoting the country’s national research agenda. Question 16 A – C of the survey dealt with CGIAR / Center partnerships with these organizations.

All respondent groups indicated that they believe these partnerships to be important or very important (88% for ExCo/Mem respondents to 95% for Science Council respondents and the professional staff). In contrast, only 45% of all respondents think they are effective. Those most closely involved – board chairs and center executives, and the Science Council – rated partnerships with NARS as 60% and 52% effective or very effective.

(b) Partnerships with Agricultural Research Institutes (ARIs)

The percentage of respondents who believe CGIAR and Center partnerships with ARIs are important or very important is high at 86% for all respondents. The board chair/center executive sub-group gave a 100% importance rating, and the Science Council 79%. In contrast, only 43% of all respondents think these partnerships are effective or very effective (54% of board chairs/center executives and 56% of Science Council respondents).

(c) Partnerships with NGOs

Fifty-nine percent (58%) of all respondents believe that partnerships with NGOs are important. With the exception of the Challenge Program (91%), respondents in the sub-groups agreed within 5 percentage points. On the other hand, only 20% of all respondents think CGIAR/Center – NGO partnerships are effective.

(d) Partnerships with the private sector
Sixty-three percent (63%) of all respondents think partnerships with the private sector are important. Both Science Council respondents and the professional staff gave a somewhat-lower importance rating at 41% and 45%, respectively. Effectiveness? Only 10% of respondents think partnerships with the private sector are effective (12% of board chairs and center executives and 36% of Science Council respondents think they are effective).

Figure 8 depicts the importance / effectiveness perspective on the NARS, ARI, NGO and private sector partnerships. The “not clearly effective or ineffective” rating has been included because it was selected so frequently by individuals in all of the groups.

It is unclear why this should be the case. Perhaps there is confusion about the nature, value and workings of these partnerships. Or, there may be a pressing need to assess the partnership strategy and its performance. Both of these possibilities are supported by respondent comments. Whatever the reason, the implication is that respondents were not quite willing to describe these relationships as ineffective.

**Figure 8:** Importance & Effectiveness of Partnerships with NARS, ARIs, NGOs and Private Sector

![Graph depicting importance and effectiveness of partnerships]

**Suggestions for Improvement and Respondent Comments**

Respondents were again asked to select one or more options and to comment on how the current situation might be improved. The options and most of the comments dealt with one or more of the following:
• **The need to provide policy and/or strategic framework(s) for partnering.** Between 54% and 62% of respondents thought that developing effective policies and strategic plans for partnering should receive the highest consideration (for NARS and private sector partnerships, respectively). The majority of comments indicated that this should be a priority if partnerships are to be effective vehicles for the CGIAR and Centers.

There were differing opinions on whether there should be one framework or several – after all, the nature of these partnerships and the capacities of various partners are different. Respondents also disagreed about which entity should take responsibility for developing and implementing these approaches – the CGIAR/Executive Council, the Centers, the Science Council or Challenge Programs. Some stressed that partnerships must be encouraged but not forced if they are to be effective.

• **What else can be done to harness and support these relationships, and make them more effective?** Various options were given in the questions and respondents offered more. Some were: (a) strengthen Center services to NARS (47% all respondents); (b) encourage donors to fund NARS to purchase CGIAR services (37% all respondents); (c) fund more joint CGIAR-ARI projects and programs (75% all respondents); and (d) invest more resources in communication with NGOs (57% all respondents).

Respondents offered several additional suggestions, including:

a) Make a concerted effort to understand and take into account the differences in the nature and capacities of various partners, and the possible impact on effectiveness;

b) Help existing and potential partners build needed capacity;

c) Be “up-front” about partners’ expectations and who will be responsible for what;

d) Keep in mind that cooperation depends on mutual interests;

e) Support exchanges and sabbatical leave for scientists in Centers and ARIs; and

f) Change the corporate cultures of the Centers and Science Council to make them more partnership-friendly and capable, perhaps by providing incentives.

g) Training and development strategies to increase knowledge about and skills in partnering... etc.
- **Partners should have a role (or stronger role) in CGIAR and/or Center governance.** Between 38% and 53% of respondents thought that partner groups should be involved in CGIAR and/or Center governance (note, this option was offered to respondents in the “C” sections of the questions about NARS, NGOs and private sector partnerships, but not for ARI partnerships).

- **Assessing and rewarding performance.** Sixty-five percent (65%) of respondents to Question 18 C (ARI partnerships) thought networking/partnering should be incorporated into the performance measure system. The importance and effectiveness of performance assessment as a motivator and management tool were the focus of a significant number of comments, but were especially prevalent in the discussions of ARI and NGO partnerships. Some respondents seem to be referring to the performance measurement system as in the option presented in Question 18 C, whereas others were referring to performance assessment, more generally. A few respondents, in contrast, thought that performance measurement should not be applied to partnering.

Performance measurement with reference to the survey as a whole is discussed in Section 5.2.

- **Some other issues.** A few respondents were concerned about possible duplication of work and/or administrative activities among partners (especially with respect to ARIs and NGOs). Others noted that potential partners are competing with the Centers for money and personnel.

Those commenting on partnerships with the private sector noted that dealing with small and medium businesses (SMEs) is quite different from dealing with large business. Forty-eight percent (48%) of those responding to the question on private sector partnerships supported the suggestion that the CGIAR should be “more flexible in forming partnerships that are aimed at shared private goods if they are judged to be in the long-run interests of the poor.”

### 4.4 Center-to-Center Partnerships

**Importance and Effectiveness**

Eighty-five percent (85%) of all respondents think Center-to-Center partnerships are important or very important. On the other hand, only 26% believe they are effective. As with the other partnerships, a high number of respondents indicated that they are unclear about the effectiveness of these partnerships (42% of ExCo/Member respondents to 70% of Challenge Program respondents).
Suggestions for Improvement and Respondent Comments

Five options for improving Center-to-Center partnerships were listed, two of which would affect Center personnel directly:

- Increase mobility of scientists across Centers (53% all respondents agree).

- Increase joint appointments (49% all respondents agree). Respondents in all sub-groups rated this and the previous option in the mid-range (40-60%).

- Fund more inter-Center workshops or publications (48% all respondents). Seventy percent (70%) of Challenge Program scientists selected this option, while the remainder selected it between 40-60% of the time.

- The Alliance should continue to have an active role in promoting partnering (65% of all respondents agree). Seventy-two percent (72%) of professional staff and 85% of Challenge Program respondents agree. Fifty-eight percent (58%) of respondents in the board chair/center executive and Science Council sub-groups also agree (see Section 4.2 on the Alliance).

- Recognize that partnerships are appropriate only between some Centers and in relatively few ways (26% all respondents). There is considerable disagreement on this. Forty-one percent (41%) of board chairs and center executives selected this option. Respondents in the other groups selected it between 10-30% of the time. (Respondents
made a similar point in their comments with respect to the other partnerships assessed in the survey.)

Based on the respondents’ comments, the issues identified with respect to Center-to-Center partnerships are essentially the same as those identified in relation to the other partnerships. The most important were:

- The continuing need for strategic thinking – i.e., to approach partnering more strategically (policy, strategic frameworks, priority-setting, etc.), and to identify effective vehicles to support collective action.

- The importance of having a results-based and performance-based focus with respect to partnering (i.e., have performance-based incentives; do performance measurement and assessment; and reward performance and the achievement of results/outcomes).

- Concerns about the overlapping or duplication of services (Alliance, CGIAR Secretariat) and, possibly, duplication of research efforts on the part of the Centers.

- Concerns about competition between/among Centers for financial and other resources. This and the concern about duplication or overlap were seen as pressing with respect to Center-to-Center partnerships.
5.0 Managing for Results

Very little was said directly about performance management or managing for results – except for the general need to be more results-focused (see suggestions for improvement under the next sub-section).

5.1 The Priority-setting Process

The Science Council has led an exercise to define research priorities for the CGIAR and Centers. The exercise identified some 20 CGIAR priorities and five priority research areas (see section 2.0). Question 2 A-B asked respondents what they thought of the priority-setting exercise, and whether the resulting priorities are likely to provide an effective guide for resource allocation and other decision-making.

Importance and Effectiveness

Fifty-eight percent (58%) of all respondents thought that the Science Council-led priority-setting exercise has been important for the CGIAR and Centers. In contrast the board chairs and center executives gave the exercise a relatively low importance rating at 42%. Science Council, ExCo/Member and professional staff respondents rated it higher (84%, 61% and 67%, respectively). However, only 20% of all respondents thought that the resulting priorities will be effective as guides to resource allocation and other decision-making. [Whether respondents thought that decisions about resource allocation should be more or less performance-based is addressed at the end of Section 5.2 on performance measurement.] Figure 10 illustrates the relationships between the importance of the priority-setting exercise and the effectiveness of the resulting priorities by population sub-group.
Figure 10: Importance and Effectiveness: Priority-setting Exercise and Effectiveness of Resulting Priorities By Sub-Group

The vast majority of respondents in all sub-groups believe that they are generally or very familiar with CGIAR/Center priorities (96% all respondents or 47% detailed knowledge and 49% generally familiar).

**Suggestions for Improvement and Respondent Comments**

Most respondents appear to be convinced of the need to set priorities. However, the usefulness of the Council-led exercise and the resulting priorities was questioned.

With respect to the priority-setting process, some of the most important or commonly-noted issues were:

- The importance of vision – i.e., that a new vision for the CGIAR and Centers should have been developed before the priority-setting exercise was undertaken. [See Section 5.3 on vision.]

- Who should have orchestrated and participated in the process, and whose priorities should take precedence? Some respondents pointed out that deciding on priorities and which should receive funding are the prerogatives of donors (“priorities follow the money”), not of the Science Council, scientists or the development community. Others felt that the priorities will simply be used to justify resource allocations based on complex center and partner-specific priorities, or donor and international politics. These views call into question whether these particular priorities will be as useful as some had hoped for guiding resource allocation.
• The need to make the process and resulting priorities more results/outcome focused.

• Complete the process! Suggestions on what still needs to be done were wide-ranging, and included: complete framework plans; deal with how to fund the priority-setting process; and manage the related administrative burden and complications associated with applying priorities to 15 independent centres.

Most comments dealt with the priorities and not the process, however.

• Some respondents stated or implied that one or more of what they believe to be the proper characteristics of priorities were not being respected (not strategic enough, not broad enough, must be weighted or ranked, etc.)

• A small number suggested that the priorities ought to be dropped in favour of one of the following: a set of core competencies the System wishes to maintain; outcome-oriented development challenges against which resources could be mobilized; and positions of intent.

• A number of respondents commented that the current priorities are unrealistic and/or inadequate. For example:

  • They should be linked clearly to the big development challenges;
  • There should be both regional and global priorities;
  • They do not adequately reflect the key challenges facing the Centers
  • They are too narrowly focused on science and not enough on development (or, they should support a balance between science-driven research and directly-oriented development research);
  • They are too complex to be communicated easily to those involved directly and other stakeholders; and
  • There are too many to be meaningful.

Do the priorities need to be revised? The three suggestions made in Question 2D addressed this issue.

• The system needs to revise its priorities in the near future (55% all respondents). Between 44-67% of respondents in each group selected this option.

• Even if changes are needed, re-opening System priorities in the near future is too expensive and disruptive (29% all respondents agreed). From 12% (professional staff) to 38% (board chairs/center executives) of respondents selected this option. It is interesting that nearly 40% of Science Council respondents also agreed with this option.
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- No change is needed (22% all respondents). Between 20 and 30% of respondents in the groups selected this option, with one exception (Challenge Program respondents at 8%).

A few respondents also commented on how frequently priorities ought to be changed (every five years, every ten years; as needed). A couple thought that the current set of priorities is broad enough to accommodate some modification.

5.2 Performance Measurement and Management

An effective performance measurement system has several elements. It:

1. establishes a balanced set of performance measures and indicators that cover both the quantitative and non-quantitative aspects of performance;
2. gathers and analyzes accurate performance information;
3. evaluates the information and identifies possible concrete steps to correct or improve performance;
4. ensures that effective steps are taken to improve performance; and
5. reports on progress against expectations.

Respondents were not asked explicitly to assess the CGIAR/Centers’ performance measurement system. As a consequence, the contents of this section have been drawn from several different parts of the survey.

Commitment to Performance Measurement

Most respondents agreed that a performance measurement system is a useful, even essential, tool in support of good management. However, they did not all agree that the performance measurement system now in place is effective.

Respondent comments addressed the following questions: (a) whether the existing performance measurement system is sufficiently comprehensive; (b) whether the existing indicators are/are seen to be adequate; and (c) what remains to be done to have a workable performance measurement system. A forth question about the application of performance measurement is also addressed in this section – whether the allocation of Bank resources should be performance-based (Survey Question 11C).

Issues and Respondent Comments

- **Is the System comprehensive enough?** Respondents suggested that a number of areas be incorporated into the performance measurement system. Some thought certain
management processes and activities had been neglected, whereas others thought that the achievement of results and/or outcomes had not received due consideration.

Areas respondents thought should be incorporated into the existing System included:

- The effectiveness of gender and diversity programs, and the impact of projects and programs on women and children (Question 14f);
- CGIAR and Center networking and partnering activities (Questions 16-18); and
- Co-sponsors – their involvement and level of commitment (Question 13).

A few suggested that Challenge Program performance should be assessed on a different basis from that of the Centers because of the broad and complex nature of the issues they are addressing. Some wanted to see the system’s capacity to assess scientific performance strengthened. Finally, being able to assess whether the CGIAR and Centers’ programs and projects are delivering results that have the desired impact (i.e., are they supporting or doing good agricultural science research that benefits the poor) was considered most important by many (Question 6).

- **Are existing indicators adequate?** A number of respondents focused on the adequacy of existing indicators. Respondents commented that existing indicators are too arbitrary; too time consuming to apply; have yet to be proven; and may not reflect performance accurately. Others stressed that they should be applicable System-wide and to both programs and projects to be useful.

Again, the need for indicators to be relevant to both science and development was stressed, as was the need that they relate to real impacts and outcomes (e.g., they should “be linked to the impact on poverty and not to academic outputs such as papers published or scientists’ reputations”; or, they should “be focused more broadly on development rather than on the more narrow Science Council priorities”).

- **What remains to be done?** Respondents did not have a lot to say about this – but included:

  - The need to continue to improve performance indicators, and to align them with goals for the systems as desired by all the members, not just those of the World Bank

  - Increase incentives and rewards (funding, recognition, etc.) for good performance (e.g. 68% of respondents agreed with respect to Center partnering); and
• Complete and refine financial performance indicators at the Center level and communicate these to donors and co-sponsors.

• Should the allocation of Bank contributions be performance-based? As part of Question 11C, respondents were asked whether the World Bank should change its method of allocating financial resources to be more or less performance-based. The response was not overwhelmingly in favour of either option.

• Just over one-third of all respondents agreed that the Bank’s method of allocating financial resources should be more performance-based, as did three of the five groups within two percentage points. Sixty percent (60%) of Science Council respondents agreed, while only 29% of professional staff did.

• Even fewer thought that the allocation of funds should be less performance-based (13% all respondents), although the range was greater between the groups (no Challenge Program leader or professional staff member selected this option, whereas 24% of board chairs and center executives did).

Figure 11: Changing the Method of Allocating Contributions to make it more Performance Based? Opinion by Sub-group

Some comments were attached to these two options.

• Some thought that all funds should be allocated against performance, whereas others thought only directed funds should be (i.e., funds used for targeted programs and projects, but not for unrestricted funds).
commented allocating funds against performance has to be seen as a fair process based on reliable information by all those involved in or affected by it. Another thought that resource allocation should be informed by performance assessments as well as other factors.

- One respondent commented that it does not make sense to go through an annual performance measurement exercise unless the results are used to allocate resources (he/she pointed out that funding still seems to be driven by historical, institutional political biases). Another asked that performance criteria should be communicated before the previous year end.

Moving beyond Measurement to Result-based Management

Possibly the most important comment made in response to these two options had to do with the ultimate purpose of having a performance measurement system and the need to move beyond it to a fully-integrated performance management system. One important aspect of this move from assessment to management is the realization that performance information should not be used primarily to punish, but to motivate organizations (networks and centers) to identify problems so that they can be overcome or managed in the interests of achieving desired results and outcomes.

5.3 The Importance of Vision

Throughout the Survey, many respondents called for the CGIAR to be more “visionary” and/or to reconsider its current vision in light of the agriculture and development realities of the Twenty-first Century. Many recognized that effective priority-setting, and performance management and assessment have to be rooted in a shared vision of how the CGIAR and its constituent actors and stakeholders see themselves, now and into the future.

Question 24 asked respondents to write about the kind of organization they would like to see the CGIAR and Centers become. One hundred and sixty-five (165) individuals or more than 80% of the survey population answered this question. They offered nearly 150 different visions of the future of the System – some of which could be compatible and others that, clearly, are not.

With few exceptions, they did not really offer “vision statements”, per se. When done well, developing these characteristics will involve serious collaborative-but-disciplined effort on the parts of those who must share the vision.

All the usual suspects appear, but take on special meaning with reference to the CGIAR System, its context, character and focus. For example:
Independent Review of the CGIAR System

The CGIAR should:

- Become more centralized
- Be more corporate
- Have stronger governance structures
- Be more aware of its successful past
- Stay unchanged
- Be changed
- Focus on excellence in science
- Be science- & technology-driven
- Become more decentralized
- Be more networked
- Have weaker governance structures
- Be significantly new
- Be changed (a little/greatly)
- Be replaced
- Focus on the needs of the poor
- Be development-driven
6.0 The State of Reform and Capacity for Future Reform

Several survey questions examined the current state and future of reform in the CGIAR System. Questions 8 and 9 A-D focused on reforms to governance, and on what changes might still be needed and how urgently. Questions 21 A and B asked whether the collection of reforms that have been implemented from 2002 to 2007 have been important to the relevance and effectiveness of the CGIAR System, and if they have been implemented effectively. Impediments to change and how they might be dealt with were the subjects of Questions 21 C and 23). Question 22 focused on what reforms could most improve the benefits or reduce costs of CGIAR system. Each of these questions is addressed in turn.

6.1 Reform of CGIAR Governance

(a) Effectiveness of CGIAR Governance since 2002

The general consensus is that the overall governance of the CGIAR has been moderately effective since 2002 (74% all respondents). Respondents in the ExCo/member sub-group gave an effectiveness rating of 86%, followed by the Science Council and professional staff at 76% and 74%, respectively. Sixty-three percent (63%) of board chair/center executive respondents and between 53 and 44% of Science Council and Challenge Program respondents agreed.

The most important issues raised in response to this question were also raised in relation to other survey questions; they include:

- The lack of clear mandates, roles and responsibilities;
- Reforms have been costly and have added to administrative burden;
- Finding a workable, effective balance between centralization and decentralization continues to be difficult and contentious;
- The lack of an effective balance has given rise to assorted difficulties with priority-setting, resource allocation and decision-making, more generally; financial oversight; a too-high level of complexity; increased costs associated with the current governance system/structure, duplication, and so on);
- The involvement and commitment (or lack thereof) on the part of some key actors and stakeholders is worrisome.
(b) Assessment of Governance Reform Attempts to 2007

A significant majority of respondents think the reforms have been important or very important (84% all respondents). About 75% of Science Council, Challenge Program, and board chair/council executive respondents agreed. ExCo/Member respondents rated importance at 90%. The reforms to governance were rated significantly lower in terms of effectiveness (19% all respondents). Seventy-four percent (74%) of all respondents think further changes to the CGIAR governance are urgent or very urgent.

The three parameters of importance, effectiveness and urgency are compared by respondent group in Figure 12.

Figure 12: Importance, Effectiveness & Urgency of Governance Reform:
A Comparison by Population Sub-Group

Changes to Governance Still Needed

Respondents had a significant number of different (and sometimes contrary) suggestions about future changes. Most fell into three areas: (1) finding an effective balance between centralized control and Center independence; (2) improving co-ordination and relationships between System actors; and (3) improving governance / management structures and practices.

- Finding an effective balance. This is the classic dichotomy – centralization (and standardization) versus decentralization (and flexibility). It is interesting that where
ever the respondents fell on the continuum, they seem to have similar concerns about CGIAR governance. For example, nearly all of them stressed the need for stronger leadership and better decision-making; the lack of consistency in policies and practices; the lack of capacity for governance, financial management, oversight, policy-making, evaluation and audit; and so on. And, most also recognized the importance of flexibility and a certain degree of Center independence.

- But they differed considerably about where the responsibility for and capacity to respond to some or all of the issues they discussed should rest. A number thought the Executive Council and its committees with the support of the CGIAR Secretariat are the most likely candidates. Others pointed to the Alliance, some kind of “regional governance system,” or center boards. Still others thought at least some key capacities should be found throughout the network, “at every level”. It is not surprising, therefore, that the most pressing issue in reference to this question seemed to be the need to clarify the roles and responsibilities of CGIAR System actors, partners, co-sponsors, and other stakeholders.

- Improving the coordination and inter-relationships between System actors, and between the System and its external stakeholders. A number of respondents commented on the lack of coordination across the system overall, and between the System and its external stakeholders (partners, co-sponsors, donors). Others focused on the need to increase coordination between the Science Council, the CGIAR Secretariat and other System Office units. A few suggested that coordination could be improved if System actors and external stakeholders were better aware of each others’ challenges. Some thought that strong efforts have to be taken to increase and/or improve communication between and among the System actors.

- Improving management structures and practices. The greatest number and variety of suggestions on what changes still need to be made fell into this category. Around 15% of all comments stressed the need to increase transparency throughout the System. Others thought that governance processes and structures needed to be streamlined and simplified – they should be “only as complex as is needed to do the job!” Still others thought the answer lay in improved capacity through good appointment and staffing practices (board members, staff should be in place because of ability, not politics) and/or effective training and development strategies. Some recommended stronger supervision of the CG Secretariat on governance and financial issues. And, there were others.

6.2 Impact of the Reforms to the CGIAR System, 2002 to 2007

Sixty-seven percent (67%) of respondents thought that the 2002-07 reform effort has been important or very important to the relevance and effectiveness of the CGIAR. On the other hand, only 20% of respondents thought the changes were implemented effectively.
6.3 Capacity for Change and Overcoming the Impediments and Barriers

Question 21C suggested three options to improve the System’s capacity to change. Each has been mentioned in comments to other questions in the Survey as well. They are:

- Improve the decision-making process in the CGIAR System (73% all respondents).
- Give more attention to incentives, especially to aligning the incentives of individual Centers with the partnership as a whole (68% all respondents).
- Institute a fund replenishment system (40% all respondents).

Figure 14 summarizes preference ratings for these options by population sub-group.
Barriers to Change

Questions 21 C and 23 asked respondents to identify the barriers or impediments to change in the CGIAR System and suggest ways they might be overcome. Respondents offered a great deal of advice in the comments attached to these two questions. However, three key impediments or barriers stand out: (1) Reform burnout; (2) the inability to move from agreement on reforms to implementation; and (3) a lack of vision to go beyond existing mandates and structures.

1. Reform burnout.

Several respondents offered thoughts about how this might be overcome. They are simply good change management practices. One respondent provided a pretty comprehensive list of what needs to be done, which has been augmented by other respondent comments:

- CGIAR should have defined objectives, clear timelines and acceptable costs for reform;
- Reforms should be “acceptable” – i.e., validated with key stakeholders;
- Reforms should be seen as providing meaningful improvement to the System;
• The process should build, as appropriate, on the work and thinking that has been brought to the CGIAR in the past decade or so;

• Change for the sake of change is bound to be negative;

• Approach from a positive-looking perspective with buy-in from all the CGIAR and Centers through a transparent process of sharing information;

• Make sure there are enough resources of the right quality, quantity and mix, and sufficient time for reforms to be implemented; and finally

• Manage the process and the people involved in it very well – “give sufficient notice, appreciate that most people are very busy; plan and communicate with a sense of urgency, but avoid acting at the last minute”.

2. The inability to move from agreement on reforms to implementation.

Respondents offered several suggestions to overcome this barrier to successful reform; they include:

• Decisions to move ahead must be binding and management must be held accountable for implementation;

• Once agreement is reached, a “Reform Tsar” should be employed to implement it (or, must have strong leadership / a strong champion for implementation);

• It is a mistake to have the initiative come from the top because it is important to get commitment (consensus) from all parts of the system, including the Centers;

• Design the new system from outside on a client-based focus;

• Increase rewards (funding, recognition, etc.) for Centers that institute reform measures.

3. Lack of Vision to go beyond existing mandates and structures.

This issue has been raised in other parts of this survey, as well (see Section 5.3). A number of respondents seem to be of the opinion that reforms / changes will not be successful unless and until the CGIAR and the Centers, jointly, decide what they really wants to be and how to get there.
6.4 The Future of Reform: Improving benefits / Reducing Costs

Respondents had a great deal to say about the changes in CGIAR governance that are still needed. One hundred and forty (140) respondents or 70% of the survey population made over 400 suggestions – a formidable list!

The vast majority of the comments, however, have already been made in the context of other survey questions. For example, the CGIAR must:

a) Deal with issues around roles, responsibilities and accountability (rationalize roles and responsibilities, and get rid of duplication in these)

b) Develop more and more effective partnerships (increases impact; reduces duplication of some resources);

c) Manage the co-sponsors / get more stable funding (this speaks for itself!)

d) Have a strong vision, priorities, and embrace performance management and managing for results/outcomes (implement an effective performance evaluation / assessment system; be results-oriented; only fund outcome-based research);

e) Deal effectively with governance issues – rationalize, simplify, centralize-decentralize

f) Reduce/eliminate duplication; create economies of scale; reduce administrative costs, reduce bureaucracy…

g) Eliminate unproductive/ineffective centers and programs; and so on.
7.0 Members and Co-Sponsors

There are four co-sponsors: the Food and Agriculture Organization (FAO), the United Nations Development Program (UNDP), the International Fund for Agricultural Development (IFAD), and the World Bank.

Co-sponsors play several roles. They provide very significant financial support. They help identify and nominate new CGIAR directors. In addition to financial support, they provide other resources and services (e.g., staff and executive officers, actively promote the interests of the CGIAR, and so on). And, they house the Science Council Secretariat (FAO), the Alliance Office (IFAD), and the CGIAR Secretariat (World Bank). Because of their international stature, they may also enhance the international character and standing of the Centers.

This section examines the importance and effectiveness of these organizations to the CGIAR.

7.1 Role and Performance of the FAO, UNDP and IFAD Co-Sponsors

Importance and Effectiveness

Seventy-three percent (73%) of all respondents believe it is important or very important to have co-sponsors in addition to ordinary members. The board chair / center executive population sub-group gave the co-sponsors a 53% importance rating, whereas Science Council respondents rated them as important (28%) or very important (72%). The importance ratings from the other sub-groups were in the range of 70%.

However very few respondents (28%) thought that the co-sponsors are fulfilling their roles effectively. The only exception was the Science Council members (56% effective/very effective). The co-sponsor effectiveness scores ranged from 13% (by Challenge Program scientists) to 37% (by professional staff). Although Question 13 A-C did not ask respondents to comment on the FAO, IFAD and UNDP separately, their comments indicated that these organizations are not equally important and/or equally effective as co-sponsors.

Suggestions for Improvement and Respondent Comments

Respondents were given four options about how to improve the role and performance of the FAO, IFAD and UNDP, to which respondents added issues and suggestions of their own. These are summarized under three headings: (a) the Status, Power and Importance
of these Co-sponsors; (b) Co-sponsor Roles and Responsibilities; and (c) Changing or Increasing their Involvement in the CGIAR System.

- **Status, Power and Importance.** The general consensus among those who think these co-sponsors are important is that their financial and facilities-related support is valuable, although they may not have the status of the World Bank. One pointed out that they should be called “co-sponsors” only if they provide special financial support. Another felt that they should have no special status in the system despite their financial contributions (which some thought should be substantially increased – see the discussion on unrestricted funding, Section 9).

A number of respondents wondered if the co-sponsorship role should be discontinued. Two of the options attached to Question 13C addressed this:

- Inactive co-sponsorships should be discontinued (52% all respondents). Between 40% (professional staff) and 59% (board chairs/enter executives and Science Council respondents agreed.

- The co-sponsorship role should be discontinued all together (7% all respondents); this was not a popular option with any of the groups.

A couple of respondents suggested that co-sponsors should be changed when the need for them and/or the CGIAR agenda changes. One commentator thought they should be eliminated unless they could “be found something useful to do.”

- **Co-sponsor Roles and Responsibilities.** These co-sponsors currently have a limited but important role as sources of funding and providers of Science Council Secretariat and Alliance offices. A number of respondents thought that the potential of co-sponsorships has not been fully realized, and suggested that the FAO and IFAD, especially, should have larger roles.

Some suggested that co-sponsors could:

- Play an advocacy / promotion role (e.g., promote the CGIAR, Center projects and Challenge Programs on their websites; work to convince their own key actors and stakeholders of the importance of supporting the CGIAR; pressure other co-sponsors to play larger role; influence broad international policies in agriculture and development). Seventy-nine percent (79%) of all respondents agreed with this last suggestion in the list of options given in Question 13C.

- Work with each other in a coordinated way in their support of the CGIAR System.
• Be involved in planning CG research and linking it with the global development agenda.

• Communicate / interact with their corresponding officers in the CG on a regular basis.

• Become partners or be more “partner-like” (e.g., interact more in the field, become involved in joint initiatives).

• Not only provide resources, but also have an active interest in the activities and health of the CGIAR.

How much support can actually be garnered for increasing the involvement of co-sponsors is debatable, however. When given the option in Question 15 C, only 21% of all respondents agreed that the roles and powers of co-sponsors should be enhanced.

• **Changing or Increasing Co-Sponsor Involvement.** Suggestions included: giving their existing role more recognition; ensuring better interaction between the CGIAR and its co-sponsors (e.g., more direct communication / dialogue; better coordination between co-sponsors and with the CGIAR); and ensuring that their perspectives and expected benefits from supporting the CGIAR are taken into account.

Possibly the most important recommendation was that a set of clear, formal expectations (roles and responsibilities) for co-sponsorship be developed and serve as the basis against which individual co-sponsors would be assessed with respect to whether they are / have been meeting their commitments. Who would be involved in developing this? It would likely need to be a collaborative effort to be effective. Certainly co-sponsors themselves would need to think through their interest and role in the CGIAR and, possibly suggest how they might like to see it change to better accommodate their expectations. The CGIAR / Secretariat would have to be involved. And some suggested that there should be input from other CGIAR System actors like the Science Council, the Alliance or individual Centers.

### 7.2 The World Bank’s Financial Roles

The World Bank plays several key roles in relation to the CGIAR and Centers. Its role in governance and its convening power were the subjects of Section 3.2. It also plays a number of financial roles. It is a donor and co-sponsor. It mobilizes contributions from other donors, and manages the Multi-Donor Trust Fund.
Respondents were asked to consider whether it is appropriate for the World Bank to play all of these roles, if it is performing them effectively, and what might be done to improve its performance.

**Appropriateness and Effectiveness**

Sixty-four percent (64%) of all respondents indicated that they believe it is appropriate for the World Bank to perform all of these financial roles. From 55% (Challenge Program) to 72% (Science Council) of respondents in the sub-groups agreed with this assessment.

Is the World Bank performing these roles effectively? Fifty-four percent (54%) of all survey respondents believe it is. Approximately 60% of Science Council and ExCo/Member respondents agree. Respondents from the other groups gave the Bank an effectiveness rating of between 33% (Challenge Program scientists) and 50% (professional staff in the CGIAR System) with respect to these roles.

Note that this is probably the best balance between importance and effectiveness achieved by any element of the CGIAR System (with the exception of Challenge Program respondents).

**Figure 15:**  Appropriateness and Effectiveness of World Bank in fulfilling its various Financial Roles – a Comparison by Sub-group

![](image)

**Suggestions for Improvement and Respondent Comments**

Respondents were given five options in Question 11C. Three dealt with performance management (addressed in Section 5.2), and two dealt with certain of the Bank’s other
financial responsibilities. Respondents were also asked to offer additional comments about how the Bank might improve its performance of these roles.

- **Conflicts of Interest (real and perceived).** This was a concern for a number of respondents who believe that the Bank is in a conflict of interest by fulfilling both financial and governance roles. Respondents suggested that the governance and financial roles – and the financial roles themselves – should be disentangled and some given to other actors in the system. A few respondents thought the conflict between roles, whether real or perceived, has caused conflict within the CGIAR community itself.

- **Clarifying / (re-)Assigning Roles and Responsibilities.** By far the majority of comments associated with this question fell into this area. In addition to the conflict-of-interest issue, respondents had several other concerns:

  - Confusion over who is responsible for what in the System. For example, a few respondents noted that there is confusion over who is responsible for the Trust Fund (“the Bank is not; the CG Secretariat is…”). Another comment – “where is the separation between Bank roles / responsibilities and those of the CG Secretariat?”

  - As noted above, a number of respondents suggested changing, diminishing or transferring the Bank’s roles to one or another of CGIAR actors. For example: transfer financial oversight and resource allocation responsibilities to the Ad Hoc Finance Committee; give the Science Council responsibility for allocation of resources; give the Alliance responsibility for recruiting staff and monitoring the CG Secretariat; have the Bank return to its role as donor of last resort, and so on. Note, that 32% of all respondents agreed that allocation powers should be transferred to the new Ad Hoc Committee on Finance (option given in question). However, the practicality of this and the other options was challenged by other respondents (for example, are the members of the Committee on Finance have the time and sufficient expertise to fulfill this role in an effective way?).

  - Respondents also pointed to a number of inadequacies in the way the Bank and/or the CG Secretariat has fulfilled these roles. With respect to:

    a) Funding – The thought that the World Bank (and the CG Secretariat): should have a position on unrestricted funds; needs to be more proactive in mobilizing funds from existing donors, and identifying and securing other funding sources; must make sure all money / financial transactions are reported and the information made available. Forty-seven percent (47%) of
respondents thought that the operations of the Multi-donor Trust Fund should be improved (option in question).

b) Services to members – the CG Secretariat should provide better briefings to members and Executive Council in support of their decision-making.

c) Advocacy – the Bank (CG Secretariat) has not fulfilled its advocacy role effectively; “more advocacy, less transactions costs”

d) CG Secretariat work-load – the Secretariat is spread too thin and is insufficiently funded; it should focus on 2-3 things it can do well, like providing member support, financial monitoring and performance measurement.

e) Lack of openness and transparency (this was on the top of the list of concerns. Respondents cited the need for more transparency with respect to (i) the management and state of the Multi-Donor Trust Fund, budget discussions, and the allocation of funds; (ii) consultations with co-sponsors and major donors; and (iii) staffing decisions and processes.
8.0 Program Innovations

8.1 Challenge Programs

Challenge Programs were established by the CGIAR in 2001 to target complex issues of high global and/or regional significance. The intent was to bring in new donors and foster more cross-cutting research. They are meant to be time-bound, independently-governed programs which bring together a wide range of partners, viewpoints and capacities to better enable them to deliver results that have high impact in key areas. Funding is intended to be incremental to flows of funds to the Centers and completely separate from that available to the Centers.

Importance and Effectiveness

Opinion about the importance of Challenge Programs to the success of the CGIAR ranged from 31% (board chairs/center executives) to 100% (Challenge Program), with 55% of all respondents judging them to be important or very important. Other sub-groups gave them an importance rating from 60-67%.

Only twenty-six percent (26%) of respondents think the Challenge Programs have been effective (this would have been lower except that Challenge Program respondents gave themselves an effectiveness rating of 82%). Board chairs and Center executives gave the Challenge Programs an effectiveness rating of 13%, whereas the Executive Council/members, Science Council and professional staff groups gave them a rating in the mid 20-percent range. A relatively high rating was given to the “not clear” option – 45% all respondents and from 40% to 67% of sub-group respondents (not including the Challenge Program). This may be because effectiveness has been highly variable from program to program.
Suggestions for Improvement and Respondent Comments

Several issues arose with respect to the Challenge Programs:

- **Challenge Programs – should they stay or should they go?** While there seems to be little or no disagreement on the importance of targeting complex global research in agriculture and development, there are significantly-different opinions about which actor(s) in the System should undertake this research.

  Respondents who offered an opinion fell into three camps.

  - Although there is a place for Challenge Programs, they should not be the normal way of doing CGIAR business. Respondents were concerned, however, about the significant transaction costs involved, the possibility of duplication of Center work, and competition over scarce resources (see Section 9.3).

  - Challenge Programs should be integrated into other types of inter-center and partnership efforts that are “more cost-effective and less disruptive”. If the response to the option given in Question 4 C to discontinue these programs is a reliable indicator, this is not a popular view except, perhaps, for board chairs and center executives (9% of all respondents and 22% of board chairs/center executives selected the option).

  - Finally, Challenge Programs have not been in existence long enough to judge.
The financial management of Challenge Programs  The quality and effectiveness of financial management in the Challenge Programs generally received low scores; the key concerns were:

- The high cost of the Challenge Programs. The Challenge Programs have very high transaction costs associated with them. Some respondents wondered whether they have been worth it in terms of objectives met and results achieved, and suggested that they should be created only when funding independent of that allocated to CGIAR/Center purposes is guaranteed.

- Challenge Programs are competing with Centers for financial and other resources. The original intent was that Challenge Programs would be funded, on an individual basis, from new, non-traditional sources. With the exception of HarvestPlus (funded by the Gates Foundation), this has not been the case. As a result, Challenge Programs have had to compete with the centers for funds – and staff members who have “followed the money”. In the opinion of some, this has put some Centers at considerable risk by undermining them financially and in terms of qualified staff.

Sixty percent (60%) of all respondents and 74% of board chairs/center executives think that Challenge Program funding must be additional to that otherwise available to the centers (option, Question 4C). This is clearly an important problem that needs to be addressed as quickly as possible – for the sake of the System overall and, especially, for the financial health and well-being of the Centers.

Better management and management control. This is an issue for the Challenge Programs, as it is for the centers and other actors in the CGIAR System. In addition to the suggestions already made elsewhere in the survey, respondents pointed to the need to:

- Develop guidelines for governing the Challenge Programs;
- Increase management accountability and accountability for program results (which has clear implications for the performance assessment of these programs), at both system and program levels;
- Sharpen each Challenge Program’s focus on clearly-defined goals; and
- Have an independent evaluation done, on a program-by-program basis, from time-to-time.
Who has “ownership” of the Challenge Programs? There were several opinions about which actors are the key “shareholders” in the programs. One respondent suggested that the variability in effectiveness of existing Challenge Programs is due, in large part, to the organization (foundation) that is their major contributor and that which is the central partner. Others think that the existing Challenge Programs should become more independent from the Centers and CGIAR – and become as closely tied to the end users (ultimate beneficiaries) of the research results. Still others want to make sure Challenge Programs are driven by good science for development and not by CGIAR, local or global politics.

The awarding of contracts and selection of research topics. Two of the options suggested in the question on how Challenge Programs might be improved looked at these issues.

- One option suggested that procedures for application and award be changed (61% all respondents). Between 44% (Science Council) and 67% (professional staff) of respondents in the groups agreed.

- The other stated that changes are needed in the way research topics are chosen (52% all respondents). Thirty-three percent (33%) of Challenge Program and 44% of Science Council respondents thought that this was the case, as did 62% of board chairs/center executives.

Respondent comments were not particularly helpful in identifying the difficulties with these two processes, although lack of openness and transparency appear to be important issues in both cases. One respondent observed that the call-for-proposal and competition procedures are time-consuming and inefficient for both the System and possible competitors (e.g., time wasted preparing proposals that would not qualify). Another thought that competition needs to be more open. In reference to topic selection, one respondent felt that stakeholders outside of the CGIAR should have more input into selecting and planning the topics Challenge Programs should address. Others thought that Centers and other CGIAR actors have too much influence over the selection of topics.

The awarding of contracts and selection of research topics. Two of the options suggested in the question on how Challenge Programs might be improved looked at these issues.
9.0 Financial Management

Respondents were asked to look at financial management issues from two perspectives: (a) the need for and adequacy of unrestricted funding; and (b) the current state of audit, financial oversight and risk management. They also commented on financial issues with respect to the Challenge Programs.

9.1 Unrestricted Funding

“Unrestricted funds” are not tied directly to particular programs or activities and may be spent by a Center in any way it wishes – whether to support research, bolster partnering efforts, deal with administrative challenges, and so on.

Importance and Adequacy

The importance of unrestricted funds to Center performance was given a very high rating by all respondents (90%) and each population sub-group (81-94%), with one exception – Challenge Program respondents (50%). By contrast, all sub-groups thought that the level of unrestricted funding is quite inadequate (7% adequate/very adequate, all respondents). Figure 16 shows the significant gap between the importance and adequacy of restricted funds.

Figure 17: Importance versus Adequacy of Unrestricted Funds Comparison by Sub-Group
Suggestions for Improvement and Respondent Comments

Three of the options noted in Question 6 C on how to deal with the inadequacy of unrestricted funds suggested ways to increase them:

- Seek new sources of unrestricted funding, including from the private sector (71% all respondents). Between 67% and 73% of respondents in the five sub-groups were in favor of this option.

- Hold a pledging session at the AGM for unrestricted funding (33% all respondents). There was significant variations among the respondent groups in this regard: 23% to 39% of respondents in various groups supported this option.

- The CGIAR and Centers should build an endowment fund to provide unrestricted income (33% all respondents). Support for this option varied greatly, from strong support (69% of Challenge Program respondents) to under 30% for the ExCo/Member, and Science Council respondents.

Another option suggested that a common full-costing policy be adopted (56% all respondents). Between 52% and 63% of respondents in the groups of respondents selected this option.

Finally, between 0% (Challenge Program) and 25% (board chairs/center executives) of respondents believe that change is unlikely because of donor constraints (14% all respondents).

The vast majority of respondent suggestions and concerns were focused on how well the CGIAR is being managed and/or on the nature and effectiveness of the donor relationship.

- The need for a well-managed system / network. Respondents recognized that the System / Network has to be well managed (in part and whole) so funders will realize that providing unrestricted funds is a good investment for them.

Respondents focused especially on the need: (a) to ensure that sound management frameworks and practices are in place; (b) for a clear CGIAR vision; (c) to understand which strategic areas of research and development it will champion; (d) to support appropriate corporate values such as due diligence, transparency, accountability, etc; and (e) to reduce or eliminate inefficient or redundant structures, centers and programs.

Some respondents stressed the need for the System and all of its actors to be committed to both managing well and delivering on the CGIAR and Centers’ reason
for existing – i.e., to support and do good agricultural research in the context of international development.

- **Managing the System – Funder Relationship.** Respondents also recognized that the CGIAR System has to “manage” the relationship with its funders.

This may mean having pledging sessions; creating new funds; negotiating over-head rates; pursuing funding from non-traditional sources; explaining the value of unrestricted funds; getting funders more involved in finding solutions to the problem; and so on. In more general terms, it will mean that the CGIAR, its Centers and Challenge Programs must educate, guide and market/sell funders on the value of unrestricted funds for the overall long-term health of the System, and as a key condition of stability for the projects and programs they have chosen to support.

Ultimately, it all comes down to the ability of the system to convince funders within the demands of their own political, regulatory, financial and management realities - what they will fund and at what levels are ultimately their decisions to make.

### 9.2 Financial Management and Risk

Question 7 A-B asked about the importance and effectiveness of the audit function, financial oversight and financial risk management in the CGIAR System. Respondents were again asked to suggest ways financial management might be improved.

**Importance and Effectiveness**

Between 85 and 100% of respondents believe that good financial management, defined as “audit, oversight and risk management,” are important or very important (93% all respondents). In contrast, only 28% of all respondents believe that the financial management system is effective or very effective (from 23% - ExCo/Mem to 34% - Board chairs/center executives).
Suggestions for Improvement and Respondent Comments

Three options were suggested for improving financial and risk management:

- One recommended that the Executive Council Ad Hoc Committee on Finance be given strong oversight powers (72% all respondents). Agreement with this option was high for ExCo/Members (82%) and for professional staff (88%), and ranged between 53% and 67% for the other groups. A number of respondents also indicated that they support this suggestion in the context of other questions.

- The other two dealt with managing funding requirements.
  
  a) There should be a centralized stabilization reserve fund (44% all respondents). Fifty percent (50%) of professional staff and 70% of Challenge Program respondents selected this option; whereas 34% to 44% of respondents from the other sub-groups thought it was a good idea. Some respondents thought that having access to such a fund would punish good manages and reward poor ones unless there were strict criteria for use only in real emergencies (e.g., the 2004 Tsunami).

  b) The Centers’ reserve funds requirements should be increased (31% all respondents). Between 15% and 44% of respondents in the sub-groups selected this option (Challenge Program, and Board chair/center executive sub-groups). A couple of respondents commented that the Centers should
be encouraged to build reserves, not discouraged from doing so – which they believe is now the case.

Respondents commented on the need to: ensure and/or strengthen financial management structures, practices and capacity, donor issues, and complete or refine the performance measurement system.

- **Financial management structures, practices and capacity.** Most suggestions offered in this context have already been discussed in other sections of the summary (Sections 7.1, 8.2, 10.1, etc.), and will not repeated in detail here.

  A key issue – and one that has permeated the responses to all questions – is the “roles and responsibility” issue – in this case, which System actor or actors should be responsible for which of the different aspects of CGIAR financial management. Two areas of concern were stressed by respondents that have not received a great deal of attention elsewhere:

  - **Risk and risk management.** The general contention is that, with the exception of a small number of financial-management types, an appreciation of the importance of risk management and its application to the CGIAR and/or Center and Challenge Program decision-making is nearly or completely missing. There does not appear to be any regularized process for identifying, assessing and managing risks, whether they are financial or programmatic in nature. More than one respondent in the Survey has suggested that everyone should be exposed to a good course on risk management. [Note: Identifying and managing risks is also important when making decisions about which projects should be pursued, how staffing should be done, and so on. The lack of appropriate risk-taking with respect to projects has been noted previously in other contexts.]

  - **Putting the right people in place.** A number of respondents emphasized the importance of making sure that quality finance directors are recruited, and that there is sufficient financial competence available throughout the CGIAR System, centrally, and in the Science Council, the Alliance, Center boards, and the Challenge Programs.

- **Donor Issues.** The donor issues noted by respondents in this question have also been discussed in other contexts, especially the need for the System to manage them (see the previous section).

- **The Performance Measurement System.** Performance measurement issues are discussed in Section 5.2.
ANNEX 1
SURVEY QUESTIONNAIRE

Ce questionnaire est disponible en français sur demand.
Se puede pedir ese cuestionario en español.

QUESTIONNAIRE TO ASSIST THE INDEPENDENT REVIEW PANEL

Q.00. I am, or have been - (Please check all that apply.)

1. [ ] Donor Representative
2. [ ] Science Council Member
3. [ ] Director General of a Center
4. [ ] Deputy Director General of a Center
5. [ ] Chair of a Center Board
6. [ ] System Office professional staff
7. [ ] Other. Namely …

The Independent Review Panel has been asked to examine both what is known about the impact of the activities of the Centers and the governance of the CGIAR system. The following questions cover issues from the Panel’s Terms of Reference. Most questions have three parts. The first asks the importance of the topic during the period being reviewed (2002-2007). The second asks how effectively the CGIAR and Centers handled the topic. Being able to compare importance and effectiveness together will enable the Panel to identify key areas of concern. Most questions are followed by an open-ended solicitation of your suggestions for improvement.

SCIENCE

Q01.A. (1) The CGIAR Science Council was established to help Centers enhance the quality, relevance and impact of the research of the Centers. How important was it to have a Science Council to do this?

[ ] No opinion, or

1  2  3  4  5

Not at all important

IMPORANCE SCALE
5 Very important
4 Important
3 Significant value but not “important”
2 Has minor value
1 No importance

SCALE
6 No opinion
5 Very important
4 Important
Appendix 1 Survey of Informed Stakeholders: Summary of Results

Q01.B. How effective has the Science Council been in helping Centres to enhance the quality, relevance and impact of their science?

[ ] No opinion, or:

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**EFFECTIVENESS SCALE**

- 6 Very effective
- 5 Effective
- 4 Not clearly effective or clearly ineffective
- 3 Marginally ineffective
- 2 Completely ineffective

Q01.C What should be done to improve the role and/or performance of the Science Council?

1. [ ] No opinion,

2. or please comment: …

Some questions, including this one, are followed by a list of statements that you can mark if you agree with them. It should not be assumed that they are complete or exhaustive or that Panel necessarily endorse any of them.

*(Check any statements below with which you agree.)*

3. [ ] No significant change to the Science Council is needed.
4. [ ] The Science Council should periodically consider each Center in depth and offer guidance and advice.
5. [ ] Science Council should have a greater role in resource allocation.
6. [ ] Science Council is conflicted between support to the Centers and its evaluation role.
7. [ ] Science Council’s role in facilitating research partnerships needs to be strengthened.
8. [ ] The way Science Council evaluates research projects undervalues some research areas.

(2) The Science Council has led an exercise that has defined research priorities for the CGIAR.
Appendix 1 Survey of Informed Stakeholders: Summary of Results

Q02.A. How important to the CGIAR and Centers was this priority setting exercise?

[ ] No opinion, or:

\[
\begin{array}{ccccc}
1 & 2 & 3 & 4 & 5 \\
\end{array}
\]

Not at all important

Very important

SCALE

6 No opinion

5 Very important

4 Important

3 Significant value but not “important”

2 Has minor value

1 No importance

Q02.B. How familiar are you with the CGIAR’s 20 priorities and five priority areas?

1. [ ] Little or no knowledge of the priorities

2. [ ] Generally familiar with them but not in detail

3. [ ] Detailed knowledge of them

Q02.C. Are the priorities as stated likely to be effective as a guide to decision making and resource allocation?

[ ] No opinion, or:

\[
\begin{array}{ccccc}
1 & 2 & 3 & 4 & 5 \\
\end{array}
\]

Not at all effective

Very effective

SCALE

6 No opinion

5 Very effective

4 Effective

3 Not clearly effective or clearly ineffective

2 Marginally ineffective

1 Completely ineffective

Q02.D. What should be done to improve the System priorities?

1. [ ] No opinion,

2. or please comment: …

(Check any statement below with which you agree.)

3. [ ] No significant change is needed.

4. [ ] The System needs to revise its priorities in the near future.

5. [ ] Whether or not change is needed, it would be too expensive and disruptive to reopen the System priorities in the near future.
(3) The CGIAR has adopted five priority areas as a guide to research. Please tell us how effectively you think the CGIAR and Centers are working in each area.

Q03.A. (A) Centers’ work on sustaining biodiversity for current and future generations.

[ ] No opinion, or

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**SCALE**

6 No opinion
5 Very effective
4 Effective
3 Not clearly effective or clearly ineffective
2 Marginally ineffective
1 Completely ineffective

Q03.B. (B) Centers’ work on genetic improvements to produce more and better food at lower cost.

[ ] No opinion, or

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**SCALE**

6 No opinion
5 Very effective
4 Effective
3 Not clearly effective or clearly ineffective
2 Marginally ineffective
1 Completely ineffective

Q03.C. (C) Centers’ work on agricultural diversification and help to farmers to take advantage from emerging opportunities for high-value commodities and products.

[ ] No opinion, or

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**SCALE**

6 No opinion
### Q03D. (D) Centers’ work on sustainable management of water, land and forest resources priority

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[ ] No opinion, or:  
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### Q03E. (E) Centers’ work on improving policies and facilitating institutional innovation

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[ ] No opinion, or:  
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Independent Review of the CGIAR System

(4) Challenge Programs were established by the CGIAR in 2001 as time-bound, independently-governed programs, whose funding was intended to be additional to that of the Centers. There are presently four Challenge Programs.

Q004A. **How important are the Challenge Programs to the success of the CGIAR?**

[ ] No opinion, or:

1  2  3  4  5

Not at all important                       Very important

**SCALE**

6  No opinion
5  Very important
4  Important
3  Significant value but not “important”
2  Has minor value
1  No importance

Q04B. **How effective have the Challenge Programs been?**

[ ] No opinion, or

1  2  3  4  5

Not at all effective                      Very effective

**SCALE**

6  No opinion
5  Very effective
4  Effective
3  Not clearly effective or clearly ineffective
2  Marginally ineffective
1  Completely ineffective

Q04C. **What should be done to improve Challenge Programs?**

1. [ ] No opinion,
2. or please comment: …
(Check any statement below with which you agree.)
3. [ ] No significant change is needed.
4. [ ] The Challenge Programs should be discontinued.
5. [ ] Changes are needed in the way in which topics for Challenge Programs are determined.
6. [ ] Changes are needed in the procedures for application and award.
7. [ ] Greater assurance is needed that the funding of the Challenge Programs is, net, additional to what would otherwise be available for the Centers.

Q05. (5) Does ethics review of research proposals need to be strengthened within the CGIAR and Centers?

1. [ ] No opinion.
2. [ ] No
3. [ ] Yes
4. If yes, who in the CGIAR System should take the lead on this?

FUNDING

Q06.A. (6) How important to the centers’ performance is unrestricted funding, in your opinion?

[ ] No opinion, or:

1       2       3       4       5
_________________________
Not at all important          Very important

SCALE
6      No opinion
5      Very important
4      Important
3      Significant value but not “important”
2      Has minor value
1      No importance

Q06.B. Across all Centers how adequate is the present level of unrestricted funding?

[ ] No opinion, or:

1       2       3       4       5
_________________________
Not at all adequate          Very adequate
Appendix 1 Survey of Informed Stakeholders: Summary of Results

**Q06.C.** What should be done to improve the proportion of unrestricted funding?
1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)
3. [ ] No significant change is needed. General ‘thematic’ restrictions are not a problem and some contract restrictions are inevitable.
4. [ ] No change is likely to be possible given donor constraints.
5. [ ] A common full-costing policy is needed.
6. [ ] CGIAR should institute a voluntary unified fund (central pool of resources) that would be allocated to Centers according to agreed criteria but unrestricted thereafter.
7. [ ] There should be a pledging session for unrestricted funding at AGM.
8. [ ] CGIAR should seek new sources of unrestricted funding, including private foundations.
9. [ ] CGIAR and Centers should build an endowment to provide unrestricted income.

**Q07.A.** (7) How important is audit, financial oversight and financial risk management by the CGIAR System, in your opinion?

[ ] No opinion, or:

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**SCALE**
6 No opinion
5 Very adequate
4
3
2
1 Not at all adequate
Appendix 1 Survey of Informed Stakeholders: Summary of Results

Q07.B. How effective is audit, oversight and financial risk management by the System?

[ ] No opinion, or

1 2 3 4 5

Not at all effective

Very effective

SCALE

6 No opinion
5 Very effective
4 Effective
3 Not clearly effective or clearly ineffective
2 Marginally ineffective
1 Completely ineffective

Q07.C. What should be done to improve financial risk management by the CGIAR System?

1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)

3. [ ] No significant change is needed.
4. [ ] ExCo Ad Hoc Committee on Finance should have strong oversight powers.
5. [ ] The Centers’ reserve funds requirement should be increased.
6. [ ] There should be a central stabilization reserve fund.

Governance

Q08 (8) In your opinion how effective has the overall governance of the CGIAR been since 2002?

1. [ ] No opinion
2. [ ] Ineffective
3. [ ] Modestly effective
4. [ ] Very effective
5. Comment? …

(9) Various changes to the governance of the CGIAR have been recommended over the past decade.
Q09.A. Potentially how important are reforms to CGIAR governance?

[ ] No opinion, or:

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Not at all important

Very important

SCALE

6  No opinion
5  Very important
4  Important
3  Significant value but not “important”
2  Has minor value
1  No importance

Q09.B. How effective have the reforms to the CGIAR governance since 2002 been?

[ ] No opinion, or:

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Not at all effective

Very effective

SCALE

6  No opinion
5  Very effective
4  Effective
3  Not clearly effective or clearly ineffective
2  Marginally ineffective
1  Completely ineffective

Q09.C. What do you think are the most important changes in governance still needed?

1. ........................................................................................................
2. ........................................................................................................
3. ........................................................................................................
4. [ ] No opinion, or:

Q09.D. How urgent is the need for change in the governance system?

[ ] No opinion, or:

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Not at all urgent

Very urgent
Appendix 1 Survey of Informed Stakeholders: Summary of Results

**Q10.A.** (10) How important is the Executive Council to CGIAR system governance?
[ ] No opinion, or:

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**Q10.B.** How effectively has the Executive Council fulfilled its functions?
[ ] No opinion, or:

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**Q10.C.** What should be done to improve on the mandate, composition or functioning of the Executive Council?

1. [ ] No opinion,
2. or please comment: …
(Check any statement below with which you agree.)

3. [ ] No significant change is needed.
4. [ ] Have more representation from developing countries.
5. [ ] Have more organized representation by constituency.
6. [ ] Give more power in ExCo decision making to major shareholders.
7. [ ] Have ExCo use formal votes and make binding decisions.
8. [ ] Have more representation of scientists.

**CO-SPONSORS**

(11) The World Bank is a CGIAR co-sponsor, a donor, a mobilizer of other donors’ contributions to the CGIAR and it manages the Multi-Donor Trust Fund.

**Q11.A.** Is it appropriate to the interests of the CGIAR and the Centers that the World Bank plays all these financial roles?

[ ] No opinion, or:

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**SCALE**

6  No opinion
5  Very important
4  Important
3  Significant value but not “important”
2  Has minor value
1  No importance

**Q11.B.** How well has the Bank performed its financial roles?

[ ] No opinion, or:

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**SCALE**

6  No opinion
5  Very effective
4  Effective
3  Not clearly effective or clearly ineffective
2  Marginally ineffective
1  Completely ineffective
Q11.C. What should be done to improve the Bank’s performance of its financial roles?

1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)

3. [ ] No significant change is needed.
4. [ ] Improve the operations of the Multi-Donor Trust Fund.
5. [ ] Change the World Bank’s method of allocating its contribution to make
   6. it [ ] more
   7. [ ] less performance-based.
8. [ ] Transfer allocation powers to the Ad Hoc Committee on Finance.

(12) How important is it that the World Bank plays the following roles in the CGIAR:

Q12.A. a) Provides the Chair

1 2 3 4 5
Not at all important

Very important

SCALE
6 No opinion
5 Very important
4 Important
3 Significant value but not “important”
2 Has minor value
1 No importance

Q12.B. b) Provides a staff member as Director of the CGIAR Secretariat

1 2 3 4 5
Not at all important

Very important

SCALE
6 No opinion
5 Very important
4 Important
3 Significant value but not “important”
2 Has minor value
1 No importance
Appendix 1 Survey of Informed Stakeholders: Summary of Results

Q12.C.  c) Houses the CGIAR Secretariat

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<td></td>
<td>Not at all important</td>
<td>Very important</td>
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**SCALE**
- 6: No opinion
- 5: Very important
- 4: Important
- 3: Significant value but not “important”
- 2: Has minor value
- 1: No importance

Q12.D.  d) Exercises its convening power to promote the interests of the CGIAR

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<td>Very important</td>
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**SCALE**
- 6: No opinion
- 5: Very important
- 4: Important
- 3: Significant value but not “important”
- 2: Has minor value
- 1: No importance

Q12.E.  What should be done to improve the Bank’s performance of these roles?
1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)
3. [ ] No significant change is needed.
4. [ ] A CGIAR legal entity should be established somewhat more autonomously from the World Bank.
5. [ ] There is a conflict between the World Bank’s role as a major donor and its management role in the CGIAR.
6. [ ] There should be more emphasis on mutual gains in knowledge management.
7. [ ] Two way exchanges with the World Bank regional, country and sector strategists in agriculture and rural development should be a higher priority.
(13) FAO is a CGIAR co-sponsor and houses the Science Council Secretariat; IFAD is a co-sponsor and houses the Alliance Office; and UNDP is a co-sponsor. Co-sponsors, being major international institutions, may enhance the international character and standing of the Centers. They also provide financial support to the Science Council and help identify and nominate new CGIAR Directors.

Q13A. How important is it that there be co-sponsors in addition to ordinary members?

[ ] No opinion, or:

1 2 3 4 5
_________________________
Not at all important Very important

SCALE
6 No opinion
5 Very important
4 Important
3 Significant value but not “important”
2 Has minor value
1 No importance

Q13.B. How effective have these co-sponsors been in performing their roles?

[ ] No opinion, or:

1 2 3 4 5
_________________________
Not at all effective Very effective

SCALE
6 No opinion
5 Very effective
4 Effective
3 Not clearly effective or clearly ineffective
2 Marginally ineffective
1 Completely ineffective
Q13.C. What should be done to improve the contributions of the co-sponsors of the CGIAR, and, as well, the value that organizations receive from being co-sponsors?

1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)
3. [ ] No significant change is needed.
4. [ ] The co-sponsor role should be discontinued.
5. [ ] Inactive co-sponsorships should be discontinued.
6. [ ] The roles and powers of the co-sponsors should be enhanced.
7. [ ] The CGIAR should make better use of the co-sponsors to influence broad international policies in agriculture and development.

(14) The Gender and Diversity Program deals with gender and diversity issues within the CGIAR and Centers, including staffing and professional development. The Participatory Research and Gender Analysis Program deals with gender in agriculture. Also, individual Centers may have gender-and-diversity related activities.

(A) The Gender and Diversity Program (Internal)

Q14.A. How important are gender and diversity issues to the effectiveness of the CGIAR and Centers?

[ ] No opinion, or:

1 2 3 4 5

SCALE

Not at all important Very important

6 No opinion
5 Very important
4 Important
3 Significant value but not “important”
2 Has minor value
1 No importance
Appendix 1 Survey of Informed Stakeholders: Summary of Results

Q14.B. How effective have the CGIAR and Centers been in achieving gender and diversity objectives?
[ ] No opinion, or:

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<tr>
<td></td>
<td>Not at all effective</td>
<td>Very effective</td>
<td></td>
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</tr>
</tbody>
</table>

**SCALE**
6 No opinion
5 Very effective
4 Effective
3 Not clearly effective or clearly ineffective
2 Marginally ineffective
1 Completely ineffective

Q.14C. What should be done to improve the CGIAR and Centers’ approaches to achieving gender and diversity objectives?
1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)
3. [ ] No change in the existing approach and activities is needed.
4. [ ] Gender and diversity principles should be implemented more strongly.
5. [ ] Collect System-wide gender-and-diversity disaggregated human resources information.

(B) Integration of Gender Issues in the Work of the CGIAR and Centers

Q14.D. How important should the integration of gender issues into the research programs of the CGIAR and Centers, including the Challenge Programs, be?

[ ] No opinion, or:

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<tr>
<td></td>
<td>Not at all important</td>
<td>Very important</td>
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</table>

**SCALE**
6 No opinion
5 Very important
4 Important
3 Significant value but not “important”
2 Has minor value
1 No importance
Q14.E. How effective have the Center’s been in incorporating a gender perspective in their research and their development activities?

[ ] No opinion, or:

1 2 3 4 5

Not at all effective

Very effective

SCALE
6 No opinion
5 Very effective
4 Effective
3 Not clearly effective or clearly ineffective
2 Marginally ineffective
1 Completely ineffective

Q14.F. What should be done to improve the CGIAR’s and Centers’ approaches to research and related activities informed by a gender perspective?

1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)
3. [ ] No change in the existing approach and activities is needed.
4. [ ] There should be a written gender policy and strategy to cover the CGIAR and Centers.
5. [ ] Establish specific accountabilities system-wide for addressing rural women’s and girls’ needs.
6. [ ] Collect more gender disaggregated data and gender performance indicators in the CGIAR and Center performance measurement system.
7. [ ] Provide System-wide training and guidance materials including a best-practice Guideline on gender and diversity in agriculture.
8. [ ] Participatory Research & Gender Analysis Program should deal with other diversity and equity issues in addition to gender (such as minorities, tribe, class, caste and race).
PARTNERSHIP

(15) The Alliance was founded to facilitate collective action by the Centers.

Q15A. How important is the Alliance to the effectiveness of the CGIAR System?

[ ] No opinion, or:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
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<tbody>
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<td>3</td>
<td>4</td>
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<td>5</td>
<td>6</td>
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</table>

Not at all important | Very important

Q15.B. How effective has the Alliance been in achieving its objectives?

[ ] No opinion, or:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
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<tr>
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<td>6</td>
</tr>
</tbody>
</table>

Not at all effective | Very effective

Q15C. What do you see as the future role of the Alliance?

1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)

3. [ ] No significant change is needed.
4. [ ] The Alliance is a temporary result of the Centers feeling excluded from a significant role in the core governance of the CGIAR.
5. [ ] The Alliance is a permanent feature of the CGIAR System and should be strengthened, with more resources, decision-making authority and management responsibilities.
6. [ ] The Alliance should be combined with ExCo to form a new joint CGIAR Board (if such a Board were formed to serve a new CGIAR legal entity).
7. [ ] The Alliance’s administrative functions and those of the System Office should be merged.
8. [ ] The role of the Alliance in mediating disputes between Centers, or considering amalgamation proposals, or considering the accession of new Centers to the partnership, should be strengthened.

Q16A. (16) How much importance should CGIAR and Centers have given to partnerships with National Agricultural Research Systems (NARS)?

[ ] No opinion, or:

1  2  3  4  5

_________________________

Very little importance       Very important

SCALE
6  No opinion
5  Very important
4  Important
3  Significant value but not “important”
2  Has minor value
1  No importance

Q16B. How effective have the CGIAR and Centers been in partnerships with NARS in developing countries?

[ ] No opinion, or:

1  2  3  4  5

_________________________

Not at all effective         Very effective

SCALE
6  No opinion
5  Very effective
4  Effective
3  Not clearly effective or clearly ineffective
2  Marginally ineffective
1  Completely ineffective
Q16.C. What should be done to improve the quality and effectiveness of CGIAR-NARS partnerships?

1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)
3. [ ] No significant change is needed.
4. [ ] Develop a strategic plan for CGIAR action with NARS.
5. [ ] Strengthen Center services to NARS.
6. [ ] Encourage donors to fund NARS to buy CGIAR services.
7. [ ] Each Center should have a written strategy for partnering with NARS.
8. [ ] Increase NARS representation in CGIAR and Center governance.

Q17.A. What importance should the CGIAR have given to Center-to-Center partnerships?

[ ] No opinion, or

1 2 3 4 5

_________________________
Very little importance Very important

SCALE
6 No opinion
5 Very important
4 Important
3 Significant value but not “important”
2 Has minor value
1 No importance

Q17.B. How effective have Center-to-Center partnerships been?

[ ] No opinion, or

1 2 3 4 5

Not at all effective Very effective

SCALE
6 No opinion
5 Very effective
4 Effective
3 Not clearly effective or clearly ineffective
2 Marginally ineffective
1 Completely ineffective
Q17.C. What should be done to improve Center-to-Center partnerships?

1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)
3. [ ] No significant change is needed.
4. [ ] Increase scientist mobility across Centers.
5. [ ] Recognize that partnerships are appropriate among only some Centers and in relatively few ways.
6. [ ] Fund more inter-Center workshops and publications.
7. [ ] Increase joint appointments.
8. [ ] Have the Alliance play an active role in promoting partnering.

Q18A. (18) How much importance should have been given to CGIAR and Center partnerships with ARIs?

[ ] No opinion, or:

1 2 3 4 5

Very little importance Very important

SCALE
6 No opinion
5 Very important
4 Important
3 Significant value but not “important”
2 Has minor value
1 No importance

Q18.B. How effective have the CGIAR and Centers been in engaging in research and technology development partnerships with the ARIs?

[ ] No opinion, or:

1 2 3 4 5

Not at all effective Very effective

SCALE
6 No opinion
5 Very effective
4 Effective
3 Not clearly effective or clearly ineffective
2 Marginally ineffective
1 Completely ineffective

Q18.C. What should be done to improve Center-to-ARI partnerships?
(Check any statement below with which you agree.)

3. [ ] No significant change is needed.
4. [ ] Strengthen CGIAR-ARI interactions by funding joint projects and programs.
5. [ ] Make networking a more important part of the Performance Measurement System.

Q19A. (19) How much importance should CGIAR and Centers’ have given to partnerships with the private sector?
[ ] No opinion, or:

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</table>

**SCALE**
6  No opinion
5  Very important
4  Important
3  Significant value but not “important”
2  Has minor value
1  No importance

Q19B. How effective have CGIAR and Centers’ partnerships with the private sector been?
[ ] No opinion, or:

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</table>

**SCALE**
6  No opinion
5  Very effective
4  Effective
3  Not clearly effective or clearly ineffective
2  Marginally ineffective
1  Completely ineffective

Q19C. What should be done to improve Center (or CGIAR)-to-Private Sector partnerships?
1. [ ] No opinion
2. or please comment: …

**Check any statement below with which you agree.**
3. [ ] No significant change is needed.
4. [ ] The CGIAR should be more flexible in forming partnerships that are aimed at shared private goods (sometimes called club goods) if they are judged to be in the long-run interest of the poor.
5. [ ] Private sector participation in ( ) CGIAR
6. ( ) Center Boards should be strengthened.
7. [ ] CGIAR should develop a more effective policy and strategy for private sector cooperation.
8. [ ] CGIAR and Centers need to improve IP policies and strategy.

**Q20.**

(20) How much priority should CGIAR and Center have given to partnerships with NGOs?

[ ] No opinion, or:

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<tbody>
<tr>
<td>SCALE</td>
<td>Very little importance</td>
<td>Very important</td>
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**Q20.B.**

How effective have partnerships with NGOs been?

[ ] No opinion, or:

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<tbody>
<tr>
<td>Not at all effective</td>
<td>Very effective</td>
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Q20.C. What should be done to improve Center(or CGIAR)-to-NGO partnerships?

1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)
3. [ ] No significant change is needed.
4. [ ] Strengthen NGO participation in ( ) CGIAR
5. ( ) Center Boards.
6. [ ] CGIAR needs to invest more in communications with NGOs.
7. [ ] Develop a more effective policy and strategy for NGO cooperation.

CAPACITY FOR REFORM

Q21A. (21) During 2002-2007, there have been major efforts to implement reforms and overcome impediments to change in the CGIAR. What is your assessment of the importance of these efforts to the relevance and effectiveness of the CGIAR?

[ ] No opinion, or:

1  2  3  4  5

Little importance

Very important

SCALE

6  No opinion
5  Very important
4  Important
3  Significant value but not “important”
2  Has minor value
1  No importance
Appendix 1 Survey of Informed Stakeholders: Summary of Results

Q21.B. How effective has CGIAR been in implementing needed change?

[ ] No opinion, or:

1 2 3 4 5

Not at all effective

Very effective

SCALE
6 No opinion
5 Very effective
4 Effective
3 Not clearly effective or clearly ineffective
2 Marginally ineffective
1 Completely ineffective

Q21.C. What should be done to improve CGIAR's capacity to implement reforms and to overcome impediments to change?

1. [ ] No opinion,
2. or please comment: …

(Check any statement below with which you agree.)
3. [ ] No significant change is needed.
4. [ ] Decision-making processes in the CGIAR System need to be improved.
5. [ ] More attention needs to be paid to incentives, especially to aligning the incentives of individual Centers with the partnership as a whole.
6. [ ] CGIAR should consider instituting a funding replenishment system in which unrestricted funding can be made contingent on future reforms being implemented.

REFORM

Q22. (22) What reforms could most improve the benefits or reduce the costs of the CGIAR System?

(A) .................................................................
(B) .................................................................
(C) .................................................................
(D) .................................................................

Q23. (23) I believe the main barriers to reform to be:

(A) .................................................................
(B) .................................................................
(C) .................................................................
(D) .................................................................

Q24. (24) What kind of organization would you like to see the CGIAR and Centers become in the future? …
ANNEX 2

SCATTER GRAMS
BY POPULATION GROUP

Figure A: Importance & Effectiveness or Adequacy of Various Dimensions of the CGIAR from the perspective of All Respondents

Figure B: Importance & Effectiveness or Adequacy of Various Dimensions of the CGIAR from the perspective of All Executive Council and Other Members

Figure C: Importance & Effectiveness or Adequacy of Various Dimensions of the CGIAR from the perspective of Developing Country Executive Council Members and Other Members

Figure D: Importance & Effectiveness or Adequacy of Various Dimensions of the CGIAR from the perspective of Board Chairs and Center Executives

Figure E: Importance & Effectiveness or Adequacy of Various Dimensions of the CGIAR from the perspective of Challenge Program Representatives

Figure F: Importance & Effectiveness or Adequacy of Various Dimensions of the CGIAR from the perspective of Science Council Representatives

Figure G: Importance & Effectiveness or Adequacy of Various Dimensions of the CGIAR from the perspective of Professional Staff
Figure A: Importance & Effectiveness/Adequacy of Various Dimensions of the CGIAR From Perspective of All Respondents (N=201)

Legend:

- Science Council
- Challenge Program
- Funding
- Governance
- Co-Sponsors
- Gender & Diversity
- Partnerships
- Partnerships
- Capacity for Reform

* Numbers in circles refer to question numbers on CGIAR Survey
Figure B: Importance & Effectiveness/Adequacy of Various Dimensions of the CGIAR from Perspective of Executive Council & Other Member Representatives (N= 91)

Legend:

- Science Council
- Challenge Program
- Funding
- Governance
- Co-Sponsors
- Gender & Diversity
- Partnerships
- Partnerships with private companies
- Capacity for Reform

* Numbers in circles refer to question numbers on CGIAR Survey
Figure C: Importance & Effectiveness/Adequacy of Various Dimensions of the CGIAR from Perspective of Executive Council and Other Members Representing Developing Countries (N=23)
Figure D: Importance & Effectiveness/Adequacy of Various Dimensions of the CGIAR from Perspective of Board Chair, Director General & Deputy Director General Respondents (N= 54)

Legend:
- 1 Science Council
- 2 Challenge Program
- 4 Challenge Program
- 6 Funding
- 7 Governance
- 9 Co-Sponsors
- 11 Gender & Diversity
- 13 Partnerships
- 14a Gender and diversity in the CGIAR System
- 14b Gender in Centers’ science
- 16 Partnership with NARS
- 18 Partnerships with ARIs
- 19 Partnerships with private companies
- 20 Governance performance
- 21 Governance reforms 2002-2007

* Numbers in circles refer to question numbers on CGIAR Survey
Figure E: Importance & Effectiveness/Adequacy of Various Dimensions of the CGIAR from Perspective of Challenge Program Respondents (N = 15)

Legend:
1. Science Council
2. Challenge Program
3. Funding
4. Governance
5. Co-Sponsors
6. Gender & Diversity
7. Capacity for Reform
* Numbers in circles refer to question numbers on CGIAR Survey
Figure F: Importance & Effectiveness/Adequacy of Various Dimensions of the CGIAR from Perspective of Science Council Respondents (N= 21)

Legend

1. Science Council
2. Challenge Program
4. Funding
6-7. Governance
9-10. Co-Sponsors
11-12. Gender & Diversity
13-16. Partnerships
17-18. Capacity for Reform

* Numbers in circles refer to question numbers on CGIAR Survey
Figure G: Importance & Effectiveness/Adequacy of Various Dimensions of the CGIAR from Perspective of Professional Staff Respondents (N = 20)

Legend:

1. Science Council
2. Challenge Program
3. Funding
4. Governance
5. Co-Sponsors
6. Gender & Diversity
7. Partnerships
8. Capacity for Reform

* Numbers in circles refer to question numbers on CGIAR Survey
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Table 3B: Provision of Director – Importance (Q 12 B)
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Table 5C: Improving Approaches to Achieving Gender & Diversity Objectives (Q 14 C)
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Table 6 C: Future Role of Alliance (Q 15 C)

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Table 8 C: Improving NARS Partnerships (Q 16 C)

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Table 9 C: Improving ARIs Partnerships (Q 18 C)

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Table 19 C:  Improving Financial Risk Management (Q 7 C)
### EFFECTIVENESS IN CENTERS’ PRIORITY AREAS

#### Table 1A
The Effectiveness of the CGIAR & Centers in the Five Research Areas (Q 3 A-E) Response by Population and Groups

<table>
<thead>
<tr>
<th>Priority &amp; Responses</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BC &amp; Center Ex</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sustaining Biodiversity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Effective or v. effective</td>
<td>81.61%</td>
<td>85.37%</td>
<td>87.76%</td>
<td>33.33%</td>
<td>78.97%</td>
<td>73.33%</td>
</tr>
<tr>
<td>% Not clearly effective or ineffective</td>
<td>14.37%</td>
<td>9.75%</td>
<td>10.2%</td>
<td>66.67%</td>
<td>15.78%</td>
<td>20.0%</td>
</tr>
<tr>
<td>% Completely or marginally ineffective</td>
<td>4.02%</td>
<td>4.88%</td>
<td>2.04%</td>
<td>0.0%</td>
<td>5.25%</td>
<td>6.67%</td>
</tr>
<tr>
<td>% of sample responding</td>
<td>86.57%</td>
<td>90.11%</td>
<td>90.74%</td>
<td>60.0%</td>
<td>90.48%</td>
<td>75.0%</td>
</tr>
<tr>
<td>Mean response</td>
<td>3.99</td>
<td>4.07</td>
<td>4.04</td>
<td>3.56</td>
<td>3.95</td>
<td>3.67</td>
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<td><strong>Genetic Improvements</strong></td>
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<tr>
<td>% Effective or v. effective</td>
<td>81.92%</td>
<td>79.27%</td>
<td>87.76%</td>
<td>72.73%</td>
<td>84.22%</td>
<td>81.25%</td>
</tr>
<tr>
<td>% Not clearly effective or ineffective</td>
<td>14.69%</td>
<td>14.63%</td>
<td>10.20%</td>
<td>27.27%</td>
<td>15.78%</td>
<td>18.75%</td>
</tr>
<tr>
<td>% Completely or marginally ineffective</td>
<td>3.39%</td>
<td>6.1%</td>
<td>2.04%</td>
<td>0.0%</td>
<td>0.00%</td>
<td>0.0%</td>
</tr>
<tr>
<td>% of sample responding</td>
<td>88.06%</td>
<td>90.11%</td>
<td>90.74%</td>
<td>73.33%</td>
<td>90.48%</td>
<td>80.0%</td>
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<tr>
<td>Mean response</td>
<td>4.07</td>
<td>4.04</td>
<td>4.16</td>
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<td>4.21</td>
<td>3.81</td>
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<td><strong>Agricultural Diversification</strong></td>
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<td>% Effective or v. effective</td>
<td>23.21%</td>
<td>18.19%</td>
<td>28.0%</td>
<td>50.0%</td>
<td>22.22%</td>
<td>20.0%</td>
</tr>
<tr>
<td>% Not clearly effective or ineffective</td>
<td>41.67%</td>
<td>45.45%</td>
<td>46.0%</td>
<td>25.0%</td>
<td>27.78%</td>
<td>33.33%</td>
</tr>
<tr>
<td>% Completely or marginally ineffective</td>
<td>35.12%</td>
<td>36.36%</td>
<td>26.0%</td>
<td>25.0%</td>
<td>50.0%</td>
<td>46.67%</td>
</tr>
<tr>
<td>% of sample responding</td>
<td>83.58%</td>
<td>84.62%</td>
<td>92.59%</td>
<td>53.33%</td>
<td>85.71%</td>
<td>75.0%</td>
</tr>
<tr>
<td>Mean response</td>
<td>2.9</td>
<td>2.86</td>
<td>2.44</td>
<td>3.38</td>
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<td>2.67</td>
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<td><strong>Sustainable Resources</strong></td>
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</tr>
<tr>
<td>% Effective or v. effective</td>
<td>51.45%</td>
<td>60.0%</td>
<td>47.06%</td>
<td>50.0%</td>
<td>50.0%</td>
<td>21.43%</td>
</tr>
<tr>
<td>% Not clearly effective or ineffective</td>
<td>34.1%</td>
<td>28.75%</td>
<td>33.33%</td>
<td>37.5%</td>
<td>40.0%</td>
<td>57.14%</td>
</tr>
</tbody>
</table>
Independent Review of the CGIAR System

Appendix 1 Survey of Informed Stakeholders: Summary of Results

<table>
<thead>
<tr>
<th>Priority &amp; Responses</th>
<th>All Respond' ts</th>
<th>ExCo &amp; Members</th>
<th>BC &amp; Center Ex</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes'I Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Completely or marginally ineffective</td>
<td>14.45%</td>
<td>11.25%</td>
<td>19.61%</td>
<td>12.5%</td>
<td>10.0%</td>
<td>21.43%</td>
</tr>
<tr>
<td>% of sample responding</td>
<td>86.07%</td>
<td>87.91%</td>
<td>94.44%</td>
<td>53.33%</td>
<td>95.24%</td>
<td>70.0%</td>
</tr>
<tr>
<td>Mean response</td>
<td>3.43</td>
<td>3.59</td>
<td>3.33</td>
<td>2.38</td>
<td>3.45</td>
<td>2.93</td>
</tr>
<tr>
<td>Policies &amp; Institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Effective or v. effective</td>
<td>32.38%</td>
<td>34.57%</td>
<td>33.33%</td>
<td>20.0%</td>
<td>44.44%</td>
<td>12.5%</td>
</tr>
<tr>
<td>% Not clearly effective or ineffective</td>
<td>44.89%</td>
<td>45.68%</td>
<td>45.10%</td>
<td>50.0%</td>
<td>38.89%</td>
<td>43.75%</td>
</tr>
<tr>
<td>% Completely or marginally ineffective</td>
<td>22.73%</td>
<td>19.75%</td>
<td>21.57%</td>
<td>30.0%</td>
<td>16.67%</td>
<td>43.75%</td>
</tr>
<tr>
<td>% of sample responding</td>
<td>87.56%</td>
<td>40.30%</td>
<td>94.44%</td>
<td>66.67%</td>
<td>85.71%</td>
<td>80.0%</td>
</tr>
<tr>
<td>Mean response</td>
<td>3.13</td>
<td>3.22</td>
<td>3.18</td>
<td>2.9</td>
<td>3.22</td>
<td>2.56</td>
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EXECUTIVE COUNCIL

Table – 2A
Importance of Executive Council to System Governance (Q - 10A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value but not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>167 / 83.08%</td>
<td>74.85%</td>
<td>17.37%</td>
<td>7.78%</td>
<td>3.97</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>76 / 83.52%</td>
<td>81.57%</td>
<td>15.8%</td>
<td>2.63%</td>
<td>4.16</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>58.82%</td>
<td>23.53%</td>
<td>17.65%</td>
<td>3.59</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>10 / 66.67%</td>
<td>90%</td>
<td>10.0%</td>
<td>0.0%</td>
<td>4.2</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>15 / 71.43%</td>
<td>80.0%</td>
<td>13.33%</td>
<td>6.67%</td>
<td>4.13</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>15 / 75.0%</td>
<td>80.0%</td>
<td>13.33%</td>
<td>6.67%</td>
<td>4.0</td>
</tr>
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</table>

Table – 2 B
Executive Council Effectiveness (Q - 10B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age of those responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>154 / 76.62%</td>
<td>29.22%</td>
<td>38.96%</td>
<td>31.82%</td>
<td>2.94</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>67 / 73.63%</td>
<td>37.31%</td>
<td>37.32%</td>
<td>25.37%</td>
<td>3.12</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>49 / 90.74%</td>
<td>14.29%</td>
<td>40.82%</td>
<td>44.89%</td>
<td>2.57</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>10 / 66.67%</td>
<td>60.0%</td>
<td>30.0%</td>
<td>10.0%</td>
<td>3.5</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>15 / 71.43%</td>
<td>33.30%</td>
<td>40.03%</td>
<td>26.67%</td>
<td>3.07</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>13 / 65.0%</td>
<td>15.39%</td>
<td>46.15%</td>
<td>38.46%</td>
<td>2.77</td>
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## Table – 2 C
### Improving Mandate, Composition or Functioning of Executive Council (Q - 10 C)
#### Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond'ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes'I Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>More developing country representation</td>
<td>1 43.90%</td>
<td>1 51.85%</td>
<td>5 27.91%</td>
<td>1 66.67%</td>
<td>2 47.06%</td>
<td>5 28.57%</td>
</tr>
<tr>
<td>ExCo to use formal votes &amp; make binding decisions</td>
<td>2 43.29%</td>
<td>2 46.91%</td>
<td>3 41.86%</td>
<td>3 33.33%</td>
<td>3 29.41%</td>
<td>1 50.0%</td>
</tr>
<tr>
<td>More organized representation by constituency</td>
<td>3 40.85%</td>
<td>3 45.68%</td>
<td>4 41.86%</td>
<td>2 44.44%</td>
<td>5 17.65%</td>
<td>4 35.71%</td>
</tr>
<tr>
<td>More representation by scientists</td>
<td>4 33.54%</td>
<td>5 20.99%</td>
<td>1 48.84%</td>
<td>4 33.33%</td>
<td>1 52.94%</td>
<td>3 35.71%</td>
</tr>
<tr>
<td>More power to major shareholders in ExCo decision-making</td>
<td>5 31.71%</td>
<td>4 25.93%</td>
<td>2 44.19%</td>
<td>5 11.11%</td>
<td>4 29.41%</td>
<td>2 42.86%</td>
</tr>
<tr>
<td>No change needed</td>
<td>6 6.10%</td>
<td>6 7.41%</td>
<td>6 6.98%</td>
<td>6 0.0%</td>
<td>6 0.0%</td>
<td>6 7.14%</td>
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WORLD BANK ROLES – CGIAR CHAIR, DIRECTOR OF CGIAR SECRETARIAT, CONVENING POWER

Table – 3A
Importance of the Provision of the CGIAR Chairperson by the World Bank (Q – 12 A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>177 / 88.06%</td>
<td>63.28%</td>
<td>14.12%</td>
<td>22.6%</td>
<td>3.66</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>80 / 87.91%</td>
<td>67.5%</td>
<td>16.25%</td>
<td>16.25%</td>
<td>3.81</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>68.63%</td>
<td>5.88%</td>
<td>25.49%</td>
<td>3.67</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>36.36%</td>
<td>36.37%</td>
<td>27.27%</td>
<td>3.27</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71 %</td>
<td>50.0%</td>
<td>5.56%</td>
<td>44.44%</td>
<td>3.33</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>17 / 85.0%</td>
<td>58.83%</td>
<td>23.53%</td>
<td>17.64%</td>
<td>3.53</td>
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Table – 3B
Importance of Provision of Director of the CGIAR Secretariat (Q – 12 B)

<table>
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<th>Population</th>
<th>Number &amp; %age of those responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>177 / 88.06%</td>
<td>48.03%</td>
<td>20.34%</td>
<td>31.63%</td>
<td>3.24</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>79 / 86.81%</td>
<td>54.43%</td>
<td>24.05%</td>
<td>21.52%</td>
<td>3.62</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>45.1%</td>
<td>13.73%</td>
<td>41.17%</td>
<td>2.94</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>27.27%</td>
<td>36.37%</td>
<td>36.36%</td>
<td>3.09</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71%</td>
<td>44.44%</td>
<td>11.11%</td>
<td>44.45%</td>
<td>3.06</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / -- %</td>
<td>44.44%</td>
<td>22.22%</td>
<td>33.34%</td>
<td>2.94</td>
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### Table – 3C
**Importance that World Bank houses the CGIAR Secretariat (Q – 12 C)**

<table>
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<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>179 / 89.05%</td>
<td>50.84%</td>
<td>15.08%</td>
<td>34.08%</td>
<td>3.26</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>81 / 89.01%</td>
<td>55.56%</td>
<td>16.05%</td>
<td>28.39%</td>
<td>3.47</td>
</tr>
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<td>BCs/Center Execs (54)</td>
<td>50 / 92.59%</td>
<td>42.0%</td>
<td>14.0%</td>
<td>44.0%</td>
<td>2.96</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>63.64%</td>
<td>0.0%</td>
<td>36.36%</td>
<td>3.27</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>19 / 90.48%</td>
<td>47.37%</td>
<td>21.05%</td>
<td>31.58%</td>
<td>3.37</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>49.99%</td>
<td>16.67%</td>
<td>33.34%</td>
<td>3.0</td>
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</table>

### Table – 3D
**Importance that World Bank exercises is Convening Power (Q – 12 D)**

<table>
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<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>175 / 87.06%</td>
<td>81.71%</td>
<td>11.43%</td>
<td>6.86%</td>
<td>4.26</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>77 / 84.62%</td>
<td>87.02%</td>
<td>11.69%</td>
<td>1.29%</td>
<td>4.39</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>82.36%</td>
<td>7.84%</td>
<td>9.8%</td>
<td>4.29</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>81.82%</td>
<td>9.09%</td>
<td>9.09%</td>
<td>4.18</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71%</td>
<td>66.66%</td>
<td>22.22%</td>
<td>11.12%</td>
<td>3.94</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>72.22%</td>
<td>11.11%</td>
<td>16.67%</td>
<td>3.94</td>
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</table>
### Table – 3E
Improving performance of World Bank in its various roles (Q - 12 E)
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGIAR legal entity should be more autonomous from Bank</td>
<td>1 56.57%</td>
<td>1 60.26%</td>
<td>2 51.02%</td>
<td>2 66.67%</td>
<td>1 52.94%</td>
<td>2 52.63%</td>
</tr>
<tr>
<td>Conflict between Bank’s role as major donor &amp; management role</td>
<td>2 48.0%</td>
<td>2 53.85%</td>
<td>4 40.82%</td>
<td>4 41.67%</td>
<td>4 17.65%</td>
<td>1 73.68%</td>
</tr>
<tr>
<td>2-way exchanges with Bank strategists in agriculture &amp; rural development should be high priority</td>
<td>3 41.14%</td>
<td>3 34.62%</td>
<td>1 53.06%</td>
<td>1 66.67%</td>
<td>2 47.06%</td>
<td>4 42.11%</td>
</tr>
<tr>
<td>More emphasis on mutual gains in knowledge management</td>
<td>4 39.43%</td>
<td>4 28.21%</td>
<td>3 40.82%</td>
<td>3 50.0%</td>
<td>3 47.06%</td>
<td>3 42.11%</td>
</tr>
<tr>
<td>No change needed</td>
<td>5 9.14%</td>
<td>5 7.69%</td>
<td>5 16.33%</td>
<td>5 8.33%</td>
<td>5 0.0%</td>
<td>5 5.26%</td>
</tr>
</tbody>
</table>
### Table – 4A
**Importance of Science Council Role (Q - 1A)**

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>183 / 91.04%</td>
<td>82.52%</td>
<td>10.93%</td>
<td>6.55%</td>
<td>4.25</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>83 / 91.21%</td>
<td>91.57%</td>
<td>6.02%</td>
<td>2.41%</td>
<td>4.33</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>52 / 96.30%</td>
<td>71.16%</td>
<td>17.3%</td>
<td>11.54%</td>
<td>4.04</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>10 / 66.67%</td>
<td>50%</td>
<td>20.0%</td>
<td>30%</td>
<td>3.50</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>19 / 90.48%</td>
<td>100%</td>
<td>0.0%</td>
<td>0.00%</td>
<td>4.79</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>19 / 95.0%</td>
<td>73.69%</td>
<td>21.05%</td>
<td>5.26%</td>
<td>4.32</td>
</tr>
</tbody>
</table>

### Table – 4B
**Science Council Effectiveness (Q - 1B)**

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>183 / 91.04%</td>
<td>46.99%</td>
<td>30.06%</td>
<td>22.95%</td>
<td>3.22</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>82 / 90.11%</td>
<td>60.98%</td>
<td>23.17%</td>
<td>15.85%</td>
<td>3.48</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>52 / 96.30%</td>
<td>19.23%</td>
<td>44.23%</td>
<td>36.54%</td>
<td>2.73</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>45.46%</td>
<td>27.27%</td>
<td>27.27%</td>
<td>3.09</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>19 / 90.48%</td>
<td>73.68%</td>
<td>15.79%</td>
<td>10.53%</td>
<td>3.63</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>19 / 95.0%</td>
<td>36.84%</td>
<td>36.84%</td>
<td>26.32%</td>
<td>2.42</td>
</tr>
</tbody>
</table>
### Table – 4C
**Improving Role / Performance of Science Council (Q - 1 C)**
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offer guidance / advice to Centers</td>
<td>1 52.97%</td>
<td>1 56.82%</td>
<td>2 46.30%</td>
<td>3 46.15%</td>
<td>1 55.0%</td>
<td>4 37.5%</td>
</tr>
<tr>
<td>Strengthen role in facilitating research partnerships</td>
<td>2 52.43%</td>
<td>2 54.55%</td>
<td>3 42.59%</td>
<td>2 76.92%</td>
<td>2 45.0%</td>
<td>2 43.75%</td>
</tr>
<tr>
<td>Some research under-valued by way projects evaluated</td>
<td>3 40.0%</td>
<td>3 30.68%</td>
<td>1 46.3%</td>
<td>1 76.92%</td>
<td>5 20.0%</td>
<td>1 50.0%</td>
</tr>
<tr>
<td>SC conflicted between support &amp; evaluation role</td>
<td>4 29.73%</td>
<td>5 23.86%</td>
<td>4 33.33%</td>
<td>4 46.15%</td>
<td>4 20.0%</td>
<td>3 37.5%</td>
</tr>
<tr>
<td>Should have greater role in resource allocation</td>
<td>5 24.86%</td>
<td>4 29.55%</td>
<td>5 16.67%</td>
<td>5 7.69%</td>
<td>3 30.0%</td>
<td>5 25.0%</td>
</tr>
<tr>
<td>No change needed</td>
<td>6 9.73%</td>
<td>6 11.36%</td>
<td>6 7.41%</td>
<td>6 0.0%</td>
<td>6 10.0%</td>
<td>6 12.5%</td>
</tr>
</tbody>
</table>
## GENDER & DIVERSITY IN THE CGIAR

### Table – 5A
Importance of gender & diversity issues to effectiveness of the CGIAR and Centers (Q 14 – A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important”</th>
<th>% No/minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>170 / 84.58%</td>
<td>73.53%</td>
<td>17.65%</td>
<td>8.82%</td>
<td>3.91</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>70 / 76.92%</td>
<td>75.72%</td>
<td>21.42%</td>
<td>2.86%</td>
<td>3.22</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>52 / 96.3%</td>
<td>76.91%</td>
<td>9.62%</td>
<td>13.47%</td>
<td>3.87</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>12 / 80.0%</td>
<td>66.67%</td>
<td>25.0%</td>
<td>8.33%</td>
<td>4.0</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>17 / 80.95%</td>
<td>64.7%</td>
<td>17.65%</td>
<td>17.65%</td>
<td>3.71</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>19 / 95.0%</td>
<td>68.42%</td>
<td>21.06%</td>
<td>10.52%</td>
<td>3.84</td>
</tr>
</tbody>
</table>

### Table – 5B
Effectiveness in achieving gender & diversity objectives (Q 14 - B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>163 / --%</td>
<td>44.78%</td>
<td>31.29%</td>
<td>23.93%</td>
<td>3.23</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>68 / 74.73%</td>
<td>42.65%</td>
<td>35.29%</td>
<td>22.06%</td>
<td>3.22</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>58.82%</td>
<td>29.41%</td>
<td>11.77%</td>
<td>3.53</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>27.28%</td>
<td>36.36%</td>
<td>36.36%</td>
<td>2.91</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>15 / 71.43%</td>
<td>53.33%</td>
<td>20.0%</td>
<td>26.67%</td>
<td>3.27</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>16.67%</td>
<td>27.78%</td>
<td>55.55%</td>
<td>2.56</td>
</tr>
</tbody>
</table>
### Table – 5C

**Improving the CGIAR & Centers’ approaches to achieving gender and diversity objectives (Q – 14 C)**

*Response by Population and Groups*

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Prof’s Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement gender &amp; diversity principles more strongly</td>
<td>1 56.21%</td>
<td>1 63.24%</td>
<td>3 34.15%</td>
<td>2 70.0%</td>
<td>2 53.33%</td>
<td>1 77.78%</td>
</tr>
<tr>
<td>Collect system-wide gender-and-diversity disaggregated human resources information</td>
<td>2 52.94%</td>
<td>2 54.41%</td>
<td>1 46.34%</td>
<td>1 70.0%</td>
<td>1 66.67%</td>
<td>2 44.44%</td>
</tr>
<tr>
<td>No change needed</td>
<td>3 25.49%</td>
<td>3 17.65%</td>
<td>2 46.34%</td>
<td>3 22.0%</td>
<td>3 26.67%</td>
<td>3 11.11%</td>
</tr>
</tbody>
</table>
INTEGRATION OF GENDER ISSUES INTO CENTERS’ RESEARCH PROGRAMS

Table – 5D
Importance of integration of gender issues into research programs (Q – 14 D)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; % age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>183 / 91.04%</td>
<td>79.23%</td>
<td>12.02%</td>
<td>8.75%</td>
<td>4.04</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>79 / 86.81%</td>
<td>84.21%</td>
<td>10.53%</td>
<td>5.26%</td>
<td>4.08</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>81.13%</td>
<td>9.43%</td>
<td>9.44%</td>
<td>4.09</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>12 / 80.0%</td>
<td>66.67%</td>
<td>25.0%</td>
<td>8.33%</td>
<td>4.08</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>17 / 80.95%</td>
<td>64.70%</td>
<td>17.65%</td>
<td>17.65%</td>
<td>4.16</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>19 / 95.0%</td>
<td>73.68%</td>
<td>15.79%</td>
<td>10.53%</td>
<td>3.84</td>
</tr>
</tbody>
</table>

Table – 5E
How effective have Centers been in incorporating a gender perspective in research & development activities (Q – 14 E)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; % age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>165 / 82.09%</td>
<td>34.55%</td>
<td>43.03%</td>
<td>22.42%</td>
<td>3.11</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>71 / 78.02%</td>
<td>41.18%</td>
<td>23.53%</td>
<td>35.29%</td>
<td>3.20</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>54 / 100%</td>
<td>46.16%</td>
<td>38.46%</td>
<td>15.38%</td>
<td>3.29</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>10 / 66.67%</td>
<td>0.0%</td>
<td>80.0%</td>
<td>20%%</td>
<td>2.80</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>15 / 75.0%</td>
<td>53.33%</td>
<td>20.0%</td>
<td>26.67%</td>
<td>3.06</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>14 / 70.0%</td>
<td>7.14%</td>
<td>42.86%</td>
<td>50.0%</td>
<td>2.50</td>
</tr>
</tbody>
</table>
### Table – 5F
Improving CGIAR & Centers’ approaches to research and related activities informed by gender perspective (Q – 15 F)
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide training &amp; guidance materials / best practices on gender &amp; diversity in agriculture</td>
<td>1 59.2%</td>
<td>1 68.83%</td>
<td>2 50.0%</td>
<td>2 66.67%</td>
<td>3 38.89%</td>
<td>3 58.82%</td>
</tr>
<tr>
<td>PRGA Program should deal with other diversity &amp; equity issues in addition to gender</td>
<td>2 45.98%</td>
<td>4 42.86%</td>
<td>1 54.0%</td>
<td>5 41.67%</td>
<td>5 44.44%</td>
<td>5 35.29%</td>
</tr>
<tr>
<td>Have written gender policy &amp; strategy to cover CGIAR &amp; Centers</td>
<td>3 43.1%</td>
<td>3 46.75%</td>
<td>4 30.0%</td>
<td>4 50.0%</td>
<td>1 50.0%</td>
<td>1 64.71%</td>
</tr>
<tr>
<td>Collect more gender disaggregated data &amp; performance indicators for PM system</td>
<td>4 43.1%</td>
<td>2 50.65%</td>
<td>5 20.0%</td>
<td>1 66.67%</td>
<td>2 44.44%</td>
<td>2 58.82%</td>
</tr>
<tr>
<td>Establish specific accountabilities system-wide to address rural women’s &amp; girls’ needs</td>
<td>5 41.38%</td>
<td>5 42.86%</td>
<td>3 34.0%</td>
<td>3 50.0%</td>
<td>4 38.89%</td>
<td>4 58.82%</td>
</tr>
<tr>
<td>No change needed</td>
<td>6 10.34%</td>
<td>6 9.09%</td>
<td>6 12.0%</td>
<td>6 8.33%</td>
<td>6 16.67%</td>
<td>6 5.88%</td>
</tr>
</tbody>
</table>
PARTNERSHIPS – IMPORTANCE OF ALLIANCE

Table – 6A
Importance of Alliance to effectiveness of the CGIAR System (Q – 15 A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>&amp; Significant value / not “important”</th>
<th>% No / minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>174 / 86.57%</td>
<td>72.41%</td>
<td>17.24%</td>
<td>10.35%</td>
<td>3.95</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>80 / 87.71%</td>
<td>76.25%</td>
<td>16.25%</td>
<td>7.5%</td>
<td>4.0</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>64.7%</td>
<td>15.69%</td>
<td>19.61%</td>
<td>3.73</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>9 / 60.0%</td>
<td>77.78%</td>
<td>11.11%</td>
<td>11.11%</td>
<td>4.11</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>16 / 76.19%</td>
<td>81.25%</td>
<td>12.5%</td>
<td>6.25%</td>
<td>4.25</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>66.67%</td>
<td>33.33%</td>
<td>0.0%</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Table – 6B
Effectiveness of Alliance in achieving its objectives (Q – 15 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>160 / 79.6%</td>
<td>19.37%</td>
<td>44.38%</td>
<td>36.25%</td>
<td>2.81</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>69 / 75.82%</td>
<td>21.74%</td>
<td>49.27%</td>
<td>28.99%</td>
<td>2.94</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>49 / 90.74%</td>
<td>20.41%</td>
<td>42.86%</td>
<td>36.73%</td>
<td>3.1</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>8 / 53.33%</td>
<td>0.0%</td>
<td>62.5%</td>
<td>37.5%</td>
<td>2.63</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>16 / 76.19%</td>
<td>31.25%</td>
<td>25.0%</td>
<td>43.75%</td>
<td>2.94</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>5.56%</td>
<td>38.89%</td>
<td>55.55%</td>
<td>2.33</td>
</tr>
</tbody>
</table>
### Table – 6C
The future role of the Alliance (Q - 15 C)
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen Alliance mediation &amp; other roles</td>
<td>1 56.47%</td>
<td>2 49.35%</td>
<td>2 66.67%</td>
<td>2 36.36%</td>
<td>2 50.0%</td>
<td>1 81.25%</td>
</tr>
<tr>
<td>Merge Alliance administrative functions with those of System Office</td>
<td>2 55.29%</td>
<td>1 58.44%</td>
<td>1 70.83%</td>
<td>1 45.45%</td>
<td>4 16.67%</td>
<td>3 43.75%</td>
</tr>
<tr>
<td>Alliance is a permanent feature &amp; should be strengthened &amp; given more responsibilities</td>
<td>3 45.88%</td>
<td>3 42.86%</td>
<td>3 47.92%</td>
<td>3 36.36%</td>
<td>1 55.56%</td>
<td>2 50.0%</td>
</tr>
<tr>
<td>Combine Alliance with ExCo to form new joint CGIAR Board</td>
<td>4 40.59%</td>
<td>4 40.26%</td>
<td>4 47.92%</td>
<td>4 36.36%</td>
<td>3 38.89%</td>
<td>4 25.0%</td>
</tr>
<tr>
<td>Alliance is temporary</td>
<td>5 23.53%</td>
<td>5 23.38%</td>
<td>5 29.17%</td>
<td>5 18.18%</td>
<td>5 11.11%</td>
<td>5 25.0%</td>
</tr>
<tr>
<td>No change needed</td>
<td>6 2.94%</td>
<td>6 3.9%</td>
<td>6 2.08%</td>
<td>6 9.09%</td>
<td>6 0.0%</td>
<td>6 0.0%</td>
</tr>
</tbody>
</table>
## CGIAR AND CENTER-TO-CENTER PARTNERSHIPS

### Table – 7A

**Importance of Center-to-Center partnerships (Q – 17 A)**

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% &amp; Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>178 / 88.56%</td>
<td>84.83%</td>
<td>10.12%</td>
<td>5.05%</td>
<td>4.31</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>79 / 86.81%</td>
<td>87.34%</td>
<td>7.59%</td>
<td>5.07%</td>
<td>4.39</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>77.36%</td>
<td>15.09%</td>
<td>7.55%</td>
<td>4.06</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33 %</td>
<td>90.91%</td>
<td>0.0%</td>
<td>9.09%</td>
<td>4.45</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71%</td>
<td>83.33%</td>
<td>16.67%</td>
<td>0.0%</td>
<td>4.33</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>17 / 85.0%</td>
<td>94.12%</td>
<td>5.88%</td>
<td>0.0%</td>
<td>4.65</td>
</tr>
</tbody>
</table>

### Table – 7B

**Effectiveness of Center-to-Center partnerships (Q – 17 B)**

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>168 / 83.58%</td>
<td>25.59%</td>
<td>47.03%</td>
<td>27.38%</td>
<td>2.98</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>71 / 78.02%</td>
<td>22.54%</td>
<td>42.25%</td>
<td>35.21%</td>
<td>2.86</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>52 / 96.3%</td>
<td>32.69%</td>
<td>44.23%</td>
<td>23.08%</td>
<td>3.1</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>10 / 66.66%</td>
<td>10.0%</td>
<td>70.0%</td>
<td>20.0%</td>
<td>2.9</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>17 / 29.41%</td>
<td>29.41%</td>
<td>52.95%</td>
<td>17.64%</td>
<td>3.12</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>22.22%</td>
<td>55.56%</td>
<td>22.22%</td>
<td>2.83</td>
</tr>
</tbody>
</table>
### Table – 7C
Improving Center-to-Center Partnerships (Q - 17 C)
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond‘ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes‘l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alliance should have active role in promoting partnering</td>
<td>1 65.38%</td>
<td>1 66.67%</td>
<td>1 57.14%</td>
<td>1 84.62%</td>
<td>1 57.89%</td>
<td>1 72.22%</td>
</tr>
<tr>
<td>Increase scientist mobility across Centers</td>
<td>2 53.3%</td>
<td>2 58.33%</td>
<td>3 46.94%</td>
<td>3 53.85%</td>
<td>2 57.89%</td>
<td>3 38.89%</td>
</tr>
<tr>
<td>Increase joint appointments</td>
<td>3 48.9%</td>
<td>3 44.05%</td>
<td>2 57.14%</td>
<td>4 53.85%</td>
<td>3 52.63%</td>
<td>4 38.89%</td>
</tr>
<tr>
<td>Fund more inter-Center workshops / publications</td>
<td>4 47.8%</td>
<td>4 42.86%</td>
<td>4 46.94%</td>
<td>2 69.23%</td>
<td>4 42.11%</td>
<td>2 61.11%</td>
</tr>
<tr>
<td>Recognize that partnerships are appropriate among some Centres only &amp; in relatively few ways</td>
<td>5 25.82%</td>
<td>5 17.86%</td>
<td>5 40.82%</td>
<td>5 15.38%</td>
<td>5 31.58%</td>
<td>5 22.22%</td>
</tr>
<tr>
<td>No change needed</td>
<td>6 3.3%</td>
<td>6 4.76%</td>
<td>6 2.04%</td>
<td>6 0.0%</td>
<td>6 5.26%</td>
<td>6 0.0%</td>
</tr>
</tbody>
</table>
## THE CGIAR AND NARS PARTNERSHIPS

### Table – 8A
Importance given to CGIAR & Centers partnerships with NARS (Q – 16 A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>&amp; Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>184 / 91.54%</td>
<td>90.21%</td>
<td>6.52%</td>
<td>3.27%</td>
<td>4.4</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>81 / 89.01%</td>
<td>87.65%</td>
<td>8.64%</td>
<td>3.71%</td>
<td>4.49</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>90.57%</td>
<td>5.66%</td>
<td>3.77%</td>
<td>4.49</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>12 / 80.0%</td>
<td>91.67%</td>
<td>8.33%</td>
<td>0.07%</td>
<td>4.75</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>20 / 95.24%</td>
<td>95.0%</td>
<td>5.0%</td>
<td>0.0%</td>
<td>4.6</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>94.44%</td>
<td>0.0%</td>
<td>5.56%</td>
<td>4.5</td>
</tr>
</tbody>
</table>

### Table – 8B
Effectiveness of the CGIAR & Centers in partnerships with NARS in developing countries (Q – 16 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>174 / 86.57%</td>
<td>44.83%</td>
<td>31.61%</td>
<td>23.56%</td>
<td>3.23</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>74 / 81.32%</td>
<td>33.78%</td>
<td>32.43%</td>
<td>33.79%</td>
<td>2.96</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>60.37%</td>
<td>28.30%</td>
<td>11.33%</td>
<td>3.57</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>12 / 80.0%</td>
<td>25.0%</td>
<td>41.67%</td>
<td>33.33%</td>
<td>2.92</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>19 / 90.48%</td>
<td>52.63%</td>
<td>26.32%</td>
<td>21.05%</td>
<td>3.42</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>16 / 80.0%</td>
<td>50.0%</td>
<td>37.5%</td>
<td>12.5%</td>
<td>3.38</td>
</tr>
</tbody>
</table>
### Table – 8C
Improving quality & effectiveness of CGIAR – NARS partnerships (Q - 16 C)
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond'ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes'l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop strategic plan for CGIAR action with NARS</td>
<td>1 58.29%</td>
<td>1 66.28%</td>
<td>1 53.06%</td>
<td>5 50.0%</td>
<td>3 52.63%</td>
<td>3 47.37%</td>
</tr>
<tr>
<td>Increase NARS representation in CGIAR and Center governance</td>
<td>2 52.94%</td>
<td>2 62.79%</td>
<td>2 46.94%</td>
<td>2 64.29%</td>
<td>2 57.09%</td>
<td>5 36.84%</td>
</tr>
<tr>
<td>Each Center should have written strategy for partnering with NARS</td>
<td>3 49.73%</td>
<td>3 44.19%</td>
<td>3 42.86%</td>
<td>3 50.0%</td>
<td>1 73.68%</td>
<td>3 47.37%</td>
</tr>
<tr>
<td>Strengthen Center services to NARS</td>
<td>4 46.52%</td>
<td>4 43.02%</td>
<td>4 38.78%</td>
<td>1 71.43%</td>
<td>4 36.84%</td>
<td>2 52.63%</td>
</tr>
<tr>
<td>Encourage donors to fund NARS to buy CGIAR services</td>
<td>5 36.90%</td>
<td>5 34.88%</td>
<td>5 38.78%</td>
<td>4 50.0%</td>
<td>5 26.32%</td>
<td>4 42.11%</td>
</tr>
<tr>
<td>No change needed</td>
<td>6 2.67%</td>
<td>6 2.33%</td>
<td>6 4.08%</td>
<td>6 0.0%</td>
<td>6 5.26%</td>
<td>6 0.0%</td>
</tr>
</tbody>
</table>
THE CGIAR AND ARI PARTNERSHIPS

Table – 9A
Importance given to CGIAR & Centers partnerships with ARIs (Q – 18 A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% &amp; Significant value / not “Important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>169 / 84.08%</td>
<td>85.80%</td>
<td>11.83%</td>
<td>2.37%</td>
<td>4.31</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>75 / 82.42%</td>
<td>81.34%</td>
<td>17.33%</td>
<td>1.33%</td>
<td>4.19</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>48 / 88.89%</td>
<td>100%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.58</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>72.73%</td>
<td>27.27%</td>
<td>0.0%</td>
<td>4.27</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>19 / 90.48%</td>
<td>78.95%</td>
<td>5.26%</td>
<td>15.79%</td>
<td>4.11</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>16 / 80.0%</td>
<td>81.25%</td>
<td>18.75%</td>
<td>0.0%</td>
<td>4.31</td>
</tr>
</tbody>
</table>

Table – 9B
Effectiveness of CGIAR and the Centers in engaging in research & technology development partnerships with the ARIs (Q – 18 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>153 / 76.12%</td>
<td>43.14%</td>
<td>42.48%</td>
<td>14.38%</td>
<td>3.32</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>67 / 73.63%</td>
<td>37.31%</td>
<td>50.75%</td>
<td>11.94%</td>
<td>3.22</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>48 / 88.89%</td>
<td>54.17%</td>
<td>31.25%</td>
<td>14.58%</td>
<td>3.5</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>36.36%</td>
<td>54.55%</td>
<td>9.09%</td>
<td>3.27</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>16 / 76.19%</td>
<td>56.25%</td>
<td>31.25%</td>
<td>12.5%</td>
<td>3.56</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>11 / 55.0%</td>
<td>27.27%</td>
<td>36.36%</td>
<td>36.37%</td>
<td>2.81</td>
</tr>
</tbody>
</table>
### Table – 9C
Improving Center to ARI partnerships (Q - 18 C)
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen by funding joint projects &amp; programs</td>
<td>1 74.84%</td>
<td>2 66.22%</td>
<td>1 74.42%</td>
<td>1 85.71%</td>
<td>1 93.33%</td>
<td>1 71.43%</td>
</tr>
<tr>
<td>Make networking more important part of PM System</td>
<td>2 64.78%</td>
<td>1 74.32%</td>
<td>2 51.16%</td>
<td>2 57.14%</td>
<td>2 60.0%</td>
<td>2 64.29%</td>
</tr>
<tr>
<td>No change needed</td>
<td>3 5.03%</td>
<td>3 4.05%</td>
<td>3 11.63%</td>
<td>3 0.0%</td>
<td>3 0.0%</td>
<td>3 0.0%</td>
</tr>
</tbody>
</table>
## CGIAR AND CENTER PARTNERSHIPS WITH NGOs

### Table – 10A

**Importance that priority given to CGIAR & Center Partnerships with NGOs (Q – 20 A)**

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; % age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important”</th>
<th>% No/minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>179 / 89.05%</td>
<td>58.65%</td>
<td>34.08%</td>
<td>7.27%</td>
<td>3.73</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>79 / 86.81%</td>
<td>58.23%</td>
<td>35.44%</td>
<td>6.33%</td>
<td>3.72</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>52.83%</td>
<td>32.08%</td>
<td>15.09%</td>
<td>3.53</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>90.91%</td>
<td>9.09%</td>
<td>0.0%</td>
<td>4.45</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71%</td>
<td>55.56%</td>
<td>44.44%</td>
<td>0.0%</td>
<td>3.83</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>61.11%</td>
<td>38.89%</td>
<td>0.0%</td>
<td>3.78</td>
</tr>
</tbody>
</table>

### Table – 10B

**Effectiveness of partnerships with NGOs (Q – 20 B)**

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; % age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>159 / 79.10%</td>
<td>20.13%</td>
<td>47.8%</td>
<td>32.07%</td>
<td>2.86</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>70 / 76.92%</td>
<td>10.0%</td>
<td>51.43%</td>
<td>38.57%</td>
<td>2.67</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>48 / 88.89%</td>
<td>33.33%</td>
<td>43.75%</td>
<td>22.92%</td>
<td>3.13</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>10 / 66.67%</td>
<td>20.0%</td>
<td>50.0%</td>
<td>30.0%</td>
<td>2.9</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>16 / 76.19%</td>
<td>25.0%</td>
<td>43.75%</td>
<td>31.25%</td>
<td>2.94</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>16 / 80.0%</td>
<td>12.5%</td>
<td>43.75%</td>
<td>43.75%</td>
<td>2.5</td>
</tr>
</tbody>
</table>
### Table – 10C
**Improving partnerships with NGOs (Q - 20 C)**
*Response by Population and Groups*

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond'ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes'l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop more effective policy &amp; strategy for NGO cooperation</td>
<td>1 58.68%</td>
<td>1 63.16%</td>
<td>1 45.83%</td>
<td>3 64.29%</td>
<td>1 64.71%</td>
<td>1 57.14%</td>
</tr>
<tr>
<td>CGIAR should invest more in communication with NGOs</td>
<td>2 56.89%</td>
<td>2 57.89%</td>
<td>2 45.83%</td>
<td>2 78.57%</td>
<td>2 58.82%</td>
<td>2 57.14%</td>
</tr>
<tr>
<td>Strengthen NGO participation in Center Boards</td>
<td>3 37.13%</td>
<td>3 42.11%</td>
<td>3 29.17%</td>
<td>1 78.57%</td>
<td>3 23.53%</td>
<td>3 50.0%</td>
</tr>
<tr>
<td>Strengthen NGO participation in CGIAR</td>
<td>4 34.73%</td>
<td>4 39.47%</td>
<td>5 22.92%</td>
<td>4 35.71%</td>
<td>4 23.53%</td>
<td>4 28.57%</td>
</tr>
<tr>
<td>No change needed</td>
<td>5 11.98%</td>
<td>5 9.21%</td>
<td>4 18.75%</td>
<td>5 0.0%</td>
<td>5 5.88%</td>
<td>5 7.14%</td>
</tr>
</tbody>
</table>
### CGIAR / CENTER PARTNERSHIPS WITH THE PRIVATE SECTOR

**Table – 11A**

How much importance should be given to partnerships with the private sector (Q – 19 A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>&amp; Significant value / not “important”</th>
<th>% No/Minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>175 / 87.06%</td>
<td>62.85%</td>
<td>27.43%</td>
<td>9.74%</td>
<td>3.78</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>80 / 87.91%</td>
<td>65.0%</td>
<td>28.75%</td>
<td>6.25%</td>
<td>3.8</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>70.59%</td>
<td>25.49%</td>
<td>3.92%</td>
<td>3.96</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>9 / 60.0%</td>
<td>77.78%</td>
<td>11.11%</td>
<td>11.11%</td>
<td>4.11</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>17 / 80.95%</td>
<td>41.18%</td>
<td>23.53%</td>
<td>35.29%</td>
<td>3.29</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>44.45%</td>
<td>38.88%</td>
<td>16.67%</td>
<td>3.44</td>
</tr>
</tbody>
</table>

**Table – 11B**

Effectiveness of partnerships with the private sector (Q – 19 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>153 / 76.12%</td>
<td>9.81%</td>
<td>38.56%</td>
<td>51.63%</td>
<td>2.54</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>64 / 70.33%</td>
<td>3.12%</td>
<td>43.75%</td>
<td>53.13%</td>
<td>2.44</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>11.76%</td>
<td>39.22%</td>
<td>49.02%</td>
<td>2.59</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>9 / 60.0%</td>
<td>11.11%</td>
<td>11.11%</td>
<td>77.78%</td>
<td>2.33</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>14 / 66.67%</td>
<td>35.72%</td>
<td>28.56%</td>
<td>35.72%</td>
<td>3.0</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>15 / 75.0%</td>
<td>6.67%</td>
<td>40.0%</td>
<td>53.33%</td>
<td>2.47</td>
</tr>
</tbody>
</table>
### Table – 11C
Improving partnerships with the private sector (Q - 19 C)
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond'ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes'l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGIAR should develop more effective policy &amp; strategy for private sector cooperation</td>
<td>1 67.02%</td>
<td>1 72.94%</td>
<td>2 61.22%</td>
<td>1 63.64%</td>
<td>1 68.42%</td>
<td>2 55.56%</td>
</tr>
<tr>
<td>CGIAR &amp; Centers need to improve IP policies &amp; strategy</td>
<td>2 56.04%</td>
<td>2 56.47%</td>
<td>3 57.14%</td>
<td>4 45.45%</td>
<td>2 57.89%</td>
<td>1 66.67%</td>
</tr>
<tr>
<td>Form more flexible partnerships aimed at shared private goods if in interests of poor</td>
<td>3 47.8%</td>
<td>3 41.18%</td>
<td>1 65.31%</td>
<td>3 54.55%</td>
<td>3 36.84%</td>
<td>4 38.89%</td>
</tr>
<tr>
<td>Strengthen Center Boards</td>
<td>4 40.66%</td>
<td>4 36.47%</td>
<td>4 51.02%</td>
<td>5 36.36%</td>
<td>4 36.84%</td>
<td>3 38.89%</td>
</tr>
<tr>
<td>Strengthen Private sector participation in CGIAR</td>
<td>5 33.52%</td>
<td>5 28.24%</td>
<td>5 36.73%</td>
<td>3 54.55%</td>
<td>5 31.58%</td>
<td>5 38.89%</td>
</tr>
<tr>
<td>No change needed</td>
<td>6 5.49%</td>
<td>6 3.53%</td>
<td>6 8.16%</td>
<td>6 0.0%</td>
<td>6 10.53%</td>
<td>6 5.56%</td>
</tr>
</tbody>
</table>
THE PRIORITY-SETTING EXERCISE

Table – 12A
Importance of priority-setting exercise to the CGIAR and Centers (Q - 2 A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>&amp; Significant value / not “important</th>
<th>% No / minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>170 / 84.58%</td>
<td>58.24%</td>
<td>27.65%</td>
<td>14.11%</td>
<td>3.62</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>77 / 84.62%</td>
<td>61.03%</td>
<td>6.5%</td>
<td>32.47%</td>
<td>3.75</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>50 / 92.59%</td>
<td>42.0%</td>
<td>32.0%</td>
<td>26.0%</td>
<td>3.18</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>9 / 80.0%</td>
<td>55.56%</td>
<td>22.0%</td>
<td>22.0%</td>
<td>3.44</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>19 90.48%</td>
<td>84.21%</td>
<td>15.79%</td>
<td>0.0%</td>
<td>4.21</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>15 / 75.0%</td>
<td>66.67%</td>
<td>6.66%</td>
<td>26.67%</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Table – 12B
Effectiveness of priorities as stated as a guide to decision-making and resource allocation (Q - 13 C)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>167 / 83.08%</td>
<td>29.94%</td>
<td>37.73%</td>
<td>32.33%</td>
<td>2.96</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>76 / 83.52%</td>
<td>38.16%</td>
<td>34.21%</td>
<td>27.63%</td>
<td>3.16</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>43 / 79.63%</td>
<td>13.96%</td>
<td>44.18%</td>
<td>41.86%</td>
<td>2.58</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>10 / 66.67%</td>
<td>30.0%</td>
<td>40.0%</td>
<td>30.0%</td>
<td>2.9</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>20 / 95.24%</td>
<td>40.0%</td>
<td>35.0%</td>
<td>25.0%</td>
<td>3.25</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>22.23%</td>
<td>38.89%</td>
<td>38.88%</td>
<td>2.72</td>
</tr>
</tbody>
</table>
### Table – 12C
Familiarity with CGIAR's 20 priorities & 5 research priority areas (Q – 2 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Detailed knowledge</th>
<th>% Generally familiar</th>
<th>% Little or no knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>197 / 98.01%</td>
<td>47.21%</td>
<td>49.24%</td>
<td>3.55%</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>90 / 98.9%</td>
<td>35.56%</td>
<td>61.11%</td>
<td>3.33%</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>52 / 96.3%</td>
<td>30.77%</td>
<td>67.31%</td>
<td>1.92%</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>15 / 100%</td>
<td>26.67%</td>
<td>66.67%</td>
<td>6.66%</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>20 / 95.24%</td>
<td>20.0%</td>
<td>80.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>20 / 100%</td>
<td>30.0%</td>
<td>60.0%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

### Table – 12D
Improving the System priorities (Q - 2 D)  
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond'ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes'l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>System needs to revise its priorities</td>
<td>1 54.71%</td>
<td>1 62.03%</td>
<td>1 43.48%</td>
<td>1 67.0%</td>
<td>2 43.75%</td>
<td>1 58.82%</td>
</tr>
<tr>
<td>To re-open would be too expensive and disruptive</td>
<td>2 28.82%</td>
<td>2 24.05%</td>
<td>2 38.13%</td>
<td>2 25.0%</td>
<td>1 37.5%</td>
<td>3 11.77%</td>
</tr>
<tr>
<td>No change needed</td>
<td>3 21.76%</td>
<td>3 22.78%</td>
<td>3 21.74%</td>
<td>5 8.0%</td>
<td>3 18.75%</td>
<td>2 29.41%</td>
</tr>
</tbody>
</table>
GOVERNANCE REFORM AND THE ATTEMPTS TO REFORM TO 2007

Table – 13A
Importance of reforms to CGIAR governance (Q - 9A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>&amp; Significant value / not “important”</th>
<th>% No/minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>173 / 86.07%</td>
<td>84.39%</td>
<td>9.83%</td>
<td>5.78%</td>
<td>4.29</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>81 / 89.01%</td>
<td>90.12%</td>
<td>7.41%</td>
<td>2.47%</td>
<td>4.48</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>50 / 92.59%</td>
<td>76.0%</td>
<td>12.0%</td>
<td>12.0%</td>
<td>3.94</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>8 / 53.33%</td>
<td>75.0%</td>
<td>25.0%</td>
<td>0.0%</td>
<td>4.25</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>16 / 76.19%</td>
<td>75.0%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>4.13</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>94.44%</td>
<td>5.56%</td>
<td>0.0%</td>
<td>4.44</td>
</tr>
</tbody>
</table>

Table – 13B
Effectiveness of reforms to CGIAR governance since 2002 (Q – 9 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>164 / 89.05%</td>
<td>18.9%</td>
<td>37.2%</td>
<td>43.9%</td>
<td>2.71</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>77 / 84.62%</td>
<td>22.08%</td>
<td>31.17%</td>
<td>46.75%</td>
<td>2.74</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>48 / 88.89%</td>
<td>10.42%</td>
<td>33.33%</td>
<td>56.25%</td>
<td>2.46</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>8 / 53.33%</td>
<td>0.0%</td>
<td>62.5%</td>
<td>37.5%</td>
<td>2.63</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>15 / 71.43%</td>
<td>46.67%</td>
<td>46.67%</td>
<td>6.66%</td>
<td>3.4</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>16 / 80.0%</td>
<td>12.5%</td>
<td>56.25%</td>
<td>31.25%</td>
<td>2.75</td>
</tr>
</tbody>
</table>
URGENCY FOR CHANGE TO SYSTEM

Table –13C
Urgency of need for change in the governance system (Q – 9 D)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Urgent or v. urgent</th>
<th>% Moderately urgent</th>
<th>% Not at all urgent / minor urgency</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>180 / 82.59%</td>
<td>74.1%</td>
<td>18.07%</td>
<td>7.83%</td>
<td>4.05</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>75 / 82.42%</td>
<td>82.67%</td>
<td>13.33%</td>
<td>4.0%</td>
<td>4.35</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>47 / 87.04%</td>
<td>57.44%</td>
<td>25.53%</td>
<td>17.03%</td>
<td>3.6</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>9 / 60.0 %</td>
<td>88.89%</td>
<td>11.0%</td>
<td>0.0%</td>
<td>4.11</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>17 / 80.95%</td>
<td>52.0%</td>
<td>37.0%</td>
<td>11.0%</td>
<td>3.59</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0 %</td>
<td>94.44%</td>
<td>5.56%</td>
<td>0.0%</td>
<td>4.39</td>
</tr>
</tbody>
</table>
ASSESSMENT OF IMPORTANCE OF REFORMS (2002-07)

Table – 14A
Importance of the reforms of 2002 – 2007 to the relevance & effectiveness of the CGIAR (Q - 21A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% &amp; Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>166 / 82.59%</td>
<td>66.87%</td>
<td>21.69%</td>
<td>11.44%</td>
<td>3.83</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>78 / 85.71%</td>
<td>66.67%</td>
<td>26.92%</td>
<td>6.41%</td>
<td>3.9</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>49 / 90.74%</td>
<td>53.06%</td>
<td>24.49%</td>
<td>22.45%</td>
<td>3.43</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>9 / 60.0 %</td>
<td>100%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.67</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>14 / 66.67%</td>
<td>71.42%</td>
<td>14.29%</td>
<td>14.29%</td>
<td>3.79</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>18 / 90.0%</td>
<td>87.5%</td>
<td>6.25%</td>
<td>6.25%</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Table – 14B
Effectiveness of the CGIAR in implementing needed changes (Q – 21 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>169 / 84.08%</td>
<td>19.53%</td>
<td>36.69%</td>
<td>43.78%</td>
<td>2.61</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>77 / 84.62%</td>
<td>22.08%</td>
<td>31.17%</td>
<td>46.75%</td>
<td>2.74</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>52 / 96.3%</td>
<td>7.69%</td>
<td>36.54%</td>
<td>55.77%</td>
<td>2.27</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>9 / 60.0 %</td>
<td>11.11%</td>
<td>55.56%</td>
<td>33.33%</td>
<td>2.55</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>15 / 71.4 %</td>
<td>20.0%</td>
<td>40.0%</td>
<td>40.0%</td>
<td>2.8</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>16 / 80.0%</td>
<td>12.5%</td>
<td>43.75%</td>
<td>43.75%</td>
<td>2.5</td>
</tr>
</tbody>
</table>
### Table – 14C

**Improving the CGIAR’s capacity to implement reforms & overcome impediments to change (Q - 21 C)**

*Response by Population and Groups*

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve decision-making processes in CGIAR System</td>
<td>1 72.53%</td>
<td>1 75.61%</td>
<td>2 68.52%</td>
<td>2 75.0%</td>
<td>2 55.56%</td>
<td>2 73.68%</td>
</tr>
<tr>
<td>Give more attention to incentives; align incentives of Centers &amp; partnership</td>
<td>2 67.58%</td>
<td>2 54.88%</td>
<td>1 70.37%</td>
<td>1 83.33%</td>
<td>1 72.22%</td>
<td>1 89.47%</td>
</tr>
<tr>
<td>Institute a fund replenishment system</td>
<td>3 39.56%</td>
<td>3 42.68%</td>
<td>3 38.89%</td>
<td>3 25.0%</td>
<td>3 38.89%</td>
<td>3 31.58%</td>
</tr>
<tr>
<td>No change needed</td>
<td>4 0.55%</td>
<td>4 2.44%</td>
<td>4 1.85%</td>
<td>4 0.0%</td>
<td>4 0.0%</td>
<td>4 0.0%</td>
</tr>
</tbody>
</table>
MEMBERS AND CO-SPONSORS - OTHER THAN THE WORLD BANK

Table – 15A
Importance of having co-sponsors in addition to ordinary members (Q - 13 A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>&amp; Significant value / not “important”</th>
<th>% No / minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>167 / 83.08%</td>
<td>72.46%</td>
<td>10.18%</td>
<td>17.36%</td>
<td>3.83</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>73 / 80.22%</td>
<td>78.08%</td>
<td>9.59%</td>
<td>12.33%</td>
<td>3.97</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>52.94%</td>
<td>11.76%</td>
<td>35.3%</td>
<td>3.24</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>8 / 53.33%</td>
<td>75.0%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>3.75</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71%</td>
<td>100%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.72</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>17 / 85.0%</td>
<td>76.47%</td>
<td>17.65%</td>
<td>5.88%</td>
<td>4.12</td>
</tr>
</tbody>
</table>

Table – 15B
Effectiveness of co-sponsors in performing their roles (Q - 13 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>163 / 81.09%</td>
<td>27.61%</td>
<td>41.72%</td>
<td>30.67%</td>
<td>2.88</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>74 / 81.32%</td>
<td>28.37%</td>
<td>55.41%</td>
<td>16.22%</td>
<td>3.11</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>49 / 90.74%</td>
<td>16.33%</td>
<td>32.65%</td>
<td>51.02%</td>
<td>2.47</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>8 / 53.33%</td>
<td>12.5%</td>
<td>62.5%</td>
<td>25%</td>
<td>2.88</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71%</td>
<td>55.55%</td>
<td>27.78%</td>
<td>16.67%</td>
<td>3.5</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>14 / 70.0%</td>
<td>35.72%</td>
<td>7.14%</td>
<td>57.14%</td>
<td>2.36</td>
</tr>
</tbody>
</table>
### Table – 15C

**Improving contributions of co-sponsors and the value that organizations receive from being co-sponsors (Q - 13 C)**

**Response by Population and Groups**

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond'ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes'l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>The CGIAR should make better use of co-sponsors to influence broad international policies in agriculture &amp; development</td>
<td>1 78.89%</td>
<td>1 77.5%</td>
<td>1 74.51%</td>
<td>1 83.33%</td>
<td>1 76.47%</td>
<td>1 95.0%</td>
</tr>
<tr>
<td>Discontinue inactive co-sponsorships</td>
<td>2 52.22%</td>
<td>2 50.0%</td>
<td>2 58.82%</td>
<td>2 50.0%</td>
<td>2 58.82%</td>
<td>2 40.0%</td>
</tr>
<tr>
<td>Enhance roles and powers of co-sponsors</td>
<td>3 21.11%</td>
<td>3 17.5%</td>
<td>3 25.49%</td>
<td>3 25.0%</td>
<td>3 17.65%</td>
<td>3 25.0%</td>
</tr>
<tr>
<td>Discontinue co-sponsor role</td>
<td>4 7.22%</td>
<td>4 7.5%</td>
<td>4 11.76%</td>
<td>4 8.33%</td>
<td>4 0.0%</td>
<td>4 0.0%</td>
</tr>
<tr>
<td>No change needed</td>
<td>5 3.89%</td>
<td>5 5.0%</td>
<td>5 5.88%</td>
<td>5 0.0%</td>
<td>5 0.0%</td>
<td>5 0.0%</td>
</tr>
</tbody>
</table>
MEMBRES AND CO-SPONSORS - WORLD BANK

Table – 16A
Appropriateness of World Bank acting as co-sponsor, donor, mobilizer of other donor contributions & manager of Multi-donor Trust Fund (Q - 11 A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Appropriate or v. appropriate</th>
<th>% Not clearly appropriate or inappropriate</th>
<th>% Not appropriate/ moderately inappropriate</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>169 / 84.08%</td>
<td>63.91%</td>
<td>18.93%</td>
<td>17.16%</td>
<td>3.7</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>77 / 84.62%</td>
<td>66.24%</td>
<td>22.08%</td>
<td>11.68%</td>
<td>3.77</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>49 / 90.74%</td>
<td>61.23%</td>
<td>20.41%</td>
<td>18.36%</td>
<td>3.59</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>54.55%</td>
<td>9.09%</td>
<td>36.36%</td>
<td>3.36</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71%</td>
<td>72.22%</td>
<td>5.56%</td>
<td>22.22%</td>
<td>3.89</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>14 / 70.0%</td>
<td>57.14%</td>
<td>21.44%</td>
<td>21.42%</td>
<td>3.79</td>
</tr>
</tbody>
</table>

Table – 16B
Effectiveness of World Bank in performing its financial roles (Q - 11 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>157 / 78.11%</td>
<td>54.14%</td>
<td>23.57%</td>
<td>22.29%</td>
<td>3.34</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>71 / 78.02%</td>
<td>60.56%</td>
<td>18.31%</td>
<td>21.13%</td>
<td>3.44</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>50 / 92.59%</td>
<td>48.0%</td>
<td>28.0%</td>
<td>24.0%</td>
<td>3.22</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>9 / 60.0%</td>
<td>33.33%</td>
<td>55.56%</td>
<td>11.11%</td>
<td>3.22</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>15 / 71.43 %</td>
<td>60.0%</td>
<td>13.33%</td>
<td>26.67%</td>
<td>3.4</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>12 / 60.0%</td>
<td>50.0%</td>
<td>25.0%</td>
<td>25.0%</td>
<td>3.33</td>
</tr>
</tbody>
</table>
### Table – 16C

**Improving the Bank’s performance of the financial roles (Q - 11 C)**

**Response by Population and Groups**

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve operations of Multi-Donor Trust Fund</td>
<td>1 47.02%</td>
<td>1 58.90%</td>
<td>3 36.96%</td>
<td>1 50.0%</td>
<td>3 30.0%</td>
<td>3 35.71%</td>
</tr>
<tr>
<td>Change Bank’s method of allocating contributions</td>
<td>2 37.75%</td>
<td>3 34.25%</td>
<td>1 43.48%</td>
<td>2 37.5%</td>
<td>4 30.0%</td>
<td>2 35.71%</td>
</tr>
<tr>
<td>Change Bank’s method of allocating contributions to make it MORE performance-based</td>
<td>3 37.75%</td>
<td>2 35.62%</td>
<td>2 39.13%</td>
<td>3 37.5%</td>
<td>1 60.0%</td>
<td>4 28.57%</td>
</tr>
<tr>
<td>Transfer allocation powers to the Ad Hoc Cttee on Finance</td>
<td>4 31.79</td>
<td>4 31.51%</td>
<td>4 30.43%</td>
<td>5 12.5%</td>
<td>2 40.0%</td>
<td>1 57.14%</td>
</tr>
<tr>
<td>Change Bank’s method of allocating contributions to make it LESS performance-based</td>
<td>5 13.25</td>
<td>5 8.22%</td>
<td>5 23.91%</td>
<td>4 0.0%</td>
<td>5 20.0%</td>
<td>5 0.0%</td>
</tr>
<tr>
<td>No change needed</td>
<td>6 7.95%</td>
<td>6 8.22%</td>
<td>6 13.04%</td>
<td>6 0.0%</td>
<td>6 0.0%</td>
<td>6 0.0%</td>
</tr>
</tbody>
</table>
### CHALLENGE PROGRAMS

**Table – 17A**

*Importance of Challenge Programs to success of the CGIAR (Q – 4 A)*

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important”</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>174 / 86.57%</td>
<td>54.60%</td>
<td>27.01%</td>
<td>18.39%</td>
<td>3.55</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>76 / 83.52%</td>
<td>60.53%</td>
<td>27.63%</td>
<td>11.84%</td>
<td>3.66</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>52 / 96.30 %</td>
<td>30.77%</td>
<td>32.69%</td>
<td>36.54%</td>
<td>3.02</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>100%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.73</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>20 / 95.24%</td>
<td>60.0%</td>
<td>25.0%</td>
<td>15.0%</td>
<td>3.75</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>15 / 75.0%</td>
<td>66.66%</td>
<td>26.67%</td>
<td>6.67%</td>
<td>3.73</td>
</tr>
</tbody>
</table>

**Table – 17B**

*Effectiveness of Challenge Programs (Q – 4 B)*

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>164 / 81.59%</td>
<td>25.61%</td>
<td>45.12%</td>
<td>29.27%</td>
<td>2.92</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>67 / 73.63%</td>
<td>25.37%</td>
<td>43.28%</td>
<td>31.35%</td>
<td>2.91</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>13.21%</td>
<td>39.62%</td>
<td>47.17%</td>
<td>2.53</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>11 / 73.33%</td>
<td>81.82%</td>
<td>18.18%</td>
<td>0.0%</td>
<td>3.91</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71%</td>
<td>27.77%</td>
<td>66.67%</td>
<td>5.56%</td>
<td>3.28</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>15 / 75.0%</td>
<td>26.67%</td>
<td>60.0%</td>
<td>13.33%</td>
<td>3.13</td>
</tr>
<tr>
<td>Rating and % respondents</td>
<td>All Respond'ts</td>
<td>ExCo &amp; Members</td>
<td>BCs/Center Execs</td>
<td>Challenge Program</td>
<td>Science Council</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------</td>
<td>----------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Changes in procedures for application &amp; award</td>
<td>1</td>
<td>60.8%</td>
<td>1</td>
<td>65.38%</td>
<td>3</td>
</tr>
<tr>
<td>Funding must be additional to that which otherwise available to Centers</td>
<td>2</td>
<td>59.66%</td>
<td>2</td>
<td>58.97%</td>
<td>1</td>
</tr>
<tr>
<td>Changes in way topics determined</td>
<td>3</td>
<td>52.27%</td>
<td>3</td>
<td>51.28%</td>
<td>2</td>
</tr>
<tr>
<td>Discontinue Programs</td>
<td>4</td>
<td>8.52%</td>
<td>4</td>
<td>3.85%</td>
<td>4</td>
</tr>
<tr>
<td>No change needed</td>
<td>5</td>
<td>5.68%</td>
<td>5</td>
<td>3.85%</td>
<td>5</td>
</tr>
</tbody>
</table>
UNRESTRICTED FUNDING

Table – 18A
Importance of unrestricted funding to Centers’ performance (Q - 6A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>&amp; Significant value / not “important”</th>
<th>% No / minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>184 / 91.54%</td>
<td>90.22%</td>
<td>8.15%</td>
<td>1.63%</td>
<td>4.53</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>81 / 89.01%</td>
<td>92.60%</td>
<td>4.94%</td>
<td>2.46%</td>
<td>4.52</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>88.68%</td>
<td>11.32%</td>
<td>0.0%</td>
<td>4.64</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>12 / 93.75%</td>
<td>50.0%</td>
<td>41.67%</td>
<td>8.33%</td>
<td>4.33</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>21 / 100%</td>
<td>80.95%</td>
<td>19.05%</td>
<td>0.0%</td>
<td>4.38</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>17 / 85.0%</td>
<td>94.12%</td>
<td>5.88%</td>
<td>0.0%</td>
<td>4.53</td>
</tr>
</tbody>
</table>

Table – 18B
Adequacy of present level of unrestricted funding across Centers (Q – 6 B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Adequate or v adequate</th>
<th>% Not clearly adequate or inadequate</th>
<th>% Not at all adequate / marginally inadequate</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>179 / 89.05%</td>
<td>6.70%</td>
<td>15.64%</td>
<td>77.66%</td>
<td>2.08</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>81 / 89.01%</td>
<td>8.64%</td>
<td>17.28%</td>
<td>74.08%</td>
<td>2.19</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>51 / 94.44%</td>
<td>5.89%</td>
<td>7.84%</td>
<td>86.27%</td>
<td>1.84</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>12 / 93.75%</td>
<td>8.33%</td>
<td>0.0%</td>
<td>91.67%</td>
<td>2.0</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>12 / 57.14%</td>
<td>0.0%</td>
<td>21.05%</td>
<td>78.95%</td>
<td>2.11</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>16 / 80.0%</td>
<td>6.25%</td>
<td>37.5%</td>
<td>56.25%</td>
<td>2.38</td>
</tr>
</tbody>
</table>
### Table – 18C
Improving the proportion of unrestricted funding (Q - 6 C)
Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond’ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes’l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGIAR should seek new sources of unrestricted funding, including private foundations</td>
<td>1</td>
<td>71.43%</td>
<td>1</td>
<td>70.45%</td>
<td>1</td>
<td>72.55%</td>
</tr>
<tr>
<td>CGIAR should institute voluntary unified fund to allocate to Centers according to agreed criteria, but unrestricted thereafter</td>
<td>3</td>
<td>47.62%</td>
<td>2</td>
<td>55.68%</td>
<td>5</td>
<td>29.41%</td>
</tr>
<tr>
<td>Pledging session at AGM for unrestricted funding</td>
<td>4</td>
<td>32.80%</td>
<td>4</td>
<td>29.55%</td>
<td>4</td>
<td>37.25%</td>
</tr>
<tr>
<td>CGIAR &amp; Centers build endowment to provide unrestricted income</td>
<td>5</td>
<td>32.80%</td>
<td>5</td>
<td>25.0%</td>
<td>3</td>
<td>39.22%</td>
</tr>
<tr>
<td>No change likely possible, given donor constraints</td>
<td>6</td>
<td>13.76%</td>
<td>6</td>
<td>9.09%</td>
<td>6</td>
<td>25.49%</td>
</tr>
<tr>
<td>No change needed</td>
<td>7</td>
<td>7.94%</td>
<td>7</td>
<td>6.82%</td>
<td>7</td>
<td>11.76%</td>
</tr>
</tbody>
</table>

Appendix 1 Survey of Informed Stakeholders: Summary of Results
## FINANCIAL MANAGEMENT AND RISK MATERIAL

**Table – 19A**  
Importance of audit, financial oversight & financial risk management (Q - 7A)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Important or v. important</th>
<th>% Significant value / not “important</th>
<th>% No /minor importance</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>179 / 89.05%</td>
<td>93.29%</td>
<td>5.59%</td>
<td>1.12%</td>
<td>4.61</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>81 / 89.01%</td>
<td>98.76%</td>
<td>1.24%</td>
<td>0.0%</td>
<td>4.75</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>84.90%</td>
<td>13.21%</td>
<td>1.89%</td>
<td>4.36</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>10 / 66.67%</td>
<td>100%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.6</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>18 / 85.71%</td>
<td>88.88%</td>
<td>5.56%</td>
<td>5.56%</td>
<td>4.61</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>17 / 85.0%</td>
<td>94.12%</td>
<td>5.88%</td>
<td>0.0%</td>
<td>4.71</td>
</tr>
</tbody>
</table>

**Table – 19B**  
Effectiveness of Audit, Oversight & Financial Risk Management by System (Q - 7B)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number &amp; %age responding in category</th>
<th>% Effective or v. effective</th>
<th>% Not clearly effective or ineffective</th>
<th>% Completely / marginally ineffective</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents (201)</td>
<td>158 / 78.61%</td>
<td>27.85%</td>
<td>35.44%</td>
<td>36.71%</td>
<td>2.9</td>
</tr>
<tr>
<td>ExCo &amp; Members (91)</td>
<td>66 / 72.53%</td>
<td>22.73%</td>
<td>33.33%</td>
<td>43.94%</td>
<td>2.83</td>
</tr>
<tr>
<td>BCs/Center Execs (54)</td>
<td>53 / 98.15%</td>
<td>33.97%</td>
<td>35.85%</td>
<td>30.18%</td>
<td>2.96</td>
</tr>
<tr>
<td>Challenge Program (15)</td>
<td>8 / 53.33%</td>
<td>37.50%</td>
<td>37.50%</td>
<td>25.00%</td>
<td>3.13</td>
</tr>
<tr>
<td>Science Council (21)</td>
<td>16 / 76.19%</td>
<td>25.0%</td>
<td>50.0%</td>
<td>25.0%</td>
<td>2.94</td>
</tr>
<tr>
<td>Professional Staff (20)</td>
<td>15 / 75.0%</td>
<td>26.67%</td>
<td>26.67%</td>
<td>46.66%</td>
<td>2.8</td>
</tr>
</tbody>
</table>
## Table – 19C
### Improving financial risk management (Q - 7 C)
#### Response by Population and Groups

<table>
<thead>
<tr>
<th>Rating and % respondents</th>
<th>All Respond'ts</th>
<th>ExCo &amp; Members</th>
<th>BCs/Center Execs</th>
<th>Challenge Program</th>
<th>Science Council</th>
<th>Profes'l Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExCo Ad Hoc Ctte on Finance should have strong oversight powers</td>
<td>71.86% (1)</td>
<td>81.82% (1)</td>
<td>53.49% (2)</td>
<td>61.54% (1)</td>
<td>66.67% (1)</td>
<td>87.5% (1)</td>
</tr>
<tr>
<td>Should be a central stabilization reserve fund</td>
<td>43.71% (2)</td>
<td>44.16% (2)</td>
<td>34.88% (3)</td>
<td>69.23% (1)</td>
<td>38.89% (2)</td>
<td>50.0% (2)</td>
</tr>
<tr>
<td>Centers’ reserve funds requirement should be increased</td>
<td>30.54% (3)</td>
<td>29.87% (3)</td>
<td>44.19% (2)</td>
<td>15.38% (3)</td>
<td>16.67% (3)</td>
<td>25.0% (3)</td>
</tr>
<tr>
<td>No change needed</td>
<td>4.19% (4)</td>
<td>2.60% (4)</td>
<td>11.63% (4)</td>
<td>0.0% (4)</td>
<td>0.0% (4)</td>
<td>0.0% (4)</td>
</tr>
</tbody>
</table>