

**CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH
INTERIM SCIENCE COUNCIL**

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(Agenda Item 5)

Activities to be handed over to the SC

For Discussion

The attached report presents the activities of iSC to be handed over to the SC. The Chairs of SCOPAS, SCOER and SPIA, Alain de Janvry, Elias Fereres and Hans Gregersen respectively, present their individual reports for discussion. In addition, Richard Harwood, will present the iSC Corporate Tasks for discussion. The iSC Members and Observers are invited to offer their comments.

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ACTIVITIES TO BE HANDED OVER TO THE SC

1. STANDING COMMITTEE ON PRIORITIES AND STRATEGIES (SCOPAS): DEVELOPING POLICY, PRIORITIES AND STRATEGIES THROUGH STRATEGIC CONSIDERATIONS IN THE EXTERNAL ENVIRONMENT

1.1 Planning System Level Priorities and Strategies

Since its inception in 1971, every five years, TAC prepared or updated recommendations on Priorities and Strategies as well as on Resource Allocation, for subsequent approval by the Group, as in 1973, 1976, 1979, 1986, 1992, 1994-95 and 1997. All these were prepared in light of strategic considerations influenced by the external environment, under which the System operates and the future research portfolio as projected by the Group and its stakeholders. At iSC/TAC 82, the Council discussed the need for updating and or producing a new CGIAR Priorities and Strategies, the last one 1998 – 200, having elapsed. This was considered timely since the new CGIAR Vision and Strategy approved by the Group at ICW'00, is already in place at the same time the System has embarked on reforms, one of which is the introduction of the Challenge Programmes. The CGIAR priorities would therefore not only guide resource allocation but also to help to define a framework for the selection of Challenge Programmes. The interim Science Council in April 2002 endorsed the proposal, which required: developing a new methodology for setting priorities in line with the new vision and strategy; and a new set of indicators. The approach adopted this time was much more consultative, demand-driven, stakeholder-owned, and in line with what CGIAR can really achieve and the likelihood of delivery.

In taking up this challenge, iSC/SCOPAS has been engaged since early 2003 in facilitating the CGIAR Priorities and Strategies formulation process in two steps, both conducted in virtual mode, with RIMISP, a Chilean NGO, providing the necessary technical support to ensure that the electronic process runs smoothly.

Step 1 of the process, sub-divided into Steps 1A and 1B the latter now coming to an end, was aimed at the stakeholders identifying and prioritizing critical global and regional issues and opportunities that require attention by the CGIAR and its partners, with a view to reducing poverty and hunger and to enhancing sustainability of resource use. Step 1A, stakeholders' panel consultations, was carried out between 21 April and 9 May, and was based on five panels, one global and four regional, namely LAC, SSAfrica, CWANA, Asia. Step 1B, open stakeholders' consultation, undertaken during 26 May and 13 June, involved designing a questionnaire by five log frame output themes and sub-themes, and asking stakeholders to score specific themes according to perceived priority.

The preliminary results from Step 1A, in terms of prioritized issues based on scores from each of the five panels, were presented at a side-meeting during the GFAR meeting in Dakar, Senegal, in May 2003. Percentage allocation of scores by themes (Germplasm, Production Systems, Policy/Institutions) showed a demand for a global 35-35-30 balance, with regional variations. There was a consistent demand for research on germplasm improvement for both food and high value crops; maintenance of genetic resources; and improving the efficiency, resilience and sustainability of smallholder farming systems. In view of the multi-dimensionality and heterogeneity of poverty, there was also a demand for

increasingly holistic approaches while keeping to proven comparative advantages in heartland and upstream research, in turn entailing improved mechanism for partnership with NARI, northern platform, private sector, NGOs, producers' and grassroots organizations.

Step 2 (Scientific consultations) was designed by iSC at its June 2003 meeting, in consultation with CDC, CBC and GFAR/ROs. Slated to operate for two weeks beginning 29 September 2003, Step 2 seeks to translate prioritized issues from Step 1 into feasible research and capacity building activities by the CGIAR and its partners, for each region and globally, according to comparative advantage and partnership potential. Three Thematic Panels were to be organized according to CGIAR log frame outputs (i.e., Germplasm Conservation and Improvement; Sustainable Production Systems through INRM; and Socioeconomics/Policy and Enhancing Institutions), each comprising some 50 participants from the scientific and research community (60% non-CGIAR from both North and South and 40% CGIAR). Each panel, led by a Theme Chair from outside the CGIAR and supported by a Vice-Chair/Facilitator from within the CGIAR, is charged with preparing a prioritized list of research themes in the corresponding output domain.

The three Thematic Panels will subsequently reconfigure as 5 Contextual Panels (i.e., one global, and four regional, namely Latin America and the Caribbean; Sub-Saharan Africa; Central Asia, West Asia and North Africa; and Asia) to establish research priorities by goal and regional context. Each Contextual Panel will enlist 30 participants (60% non-CGIAR from both North and South and 40% CGIAR) from the original Thematic Panels, and will be led by a Context Chair from outside the CGIAR with support from a Vice-Chair/Facilitator from within the CGIAR. In all, some 90 non-CGIAR scientists and 60 CGIAR scientists will serve on the 3 Thematic and 5 Contextual Panels. iSC/SCOPAS is currently in the process of setting up the Thematic and Contextual Panels for Step 2. The outcome from Step 1B is a major agenda item for discussion at iSC/TAC-85 in Berkeley, subsequently feeding into formulating the questions for Step 2. A face-to-face consultation at the end of Step 2 would be an appropriate way to round off the exercise, which is a learning process aiming to produce a collective social good. The results will be taken up by AGM'03, in Nairobi. It is the results of step 2 and comments of the Group during AGM'03 that will be handed over to the new Science Council for its consideration. The product is accompanied by the outcomes of step 1A and 1B, background papers prepared for the interim Science Council, 35 Think Pieces and a revised database on commodities.

As to the optimal outcome of the exercise, a grand vision was deemed necessary before lower level strategies could be worked out, as was the participation of non-CGIAR scientists to counter balance any CGIAR scientific biases. The list of System-level priorities had to be necessarily short enough for Challenge Programmes but long enough for Centres to disaggregate further in a meaningful way.

1.2 Regional Planning

With a view to integrating regional priorities with CGIAR priorities, SCOPAS, since AGM 2001, has been facilitating regional planning activities in the context of Plank 4 of the new CGIAR vision and strategy endorsed at ICW 2000. At AGM 2001, TAC presented to the Group a *"Progress Report on Regional Approach to Research"* (SDR/TAC: IAR/01/32) which recorded: progress achieved during 2001 by GFAR, regional and subregional organizations and CGIAR Centres to establish a regional approach to research priority

setting, as envisaged by Plank 4; and steps taken by TAC to facilitate an experimental bottom-up, priority-setting approach in the Central America sub-region.

Since AGM 2001, iSC/TAC facilitated the regional consultation process in sub-Saharan Africa region, while keeping a watching brief on regional consultation activities in other regions. On the West and Central Africa subregion, the iSC, in collaboration with GFAR and CORAF, commissioned two studies to examine the causes of low impact of agricultural research and possible solutions, from two perspectives – national and international. Willem Stoop's report, *"A study and comprehensive analysis of the causes for low adoption rates of agricultural research results in West and Central Africa: possible solutions leading to greater future impacts: The Mali and Guinea case studies"* (SDR/iSC:IAR/02/21), examined the agricultural research performance from a national perspective while Lukas Brader's report *"A Study about the Causes for Low Adoption Rates of Agriculture Research Results in West and Central Africa: Possible Solutions Leading to Greater Future Impacts"* (SDR/iSC:IAR/02/22) took an international perspective.

Discussions at iSC/TAC 83 in August 2002 concluded the Willem Stoop and Lukas Brader studies should be given maximum visibility since they: show clearly a need for better ways of assessing impact of agricultural research; help define CPs for sub-Saharan Africa; and should prove to be very useful for regional priority setting and improving agricultural research planning and implementation, already discussed by CORAF. Centres and their NARS partners are in a unique position to monitor research impact in a disaggregated fashion so as to provide CGIAR a more accurate picture of what is working and what is not. Accordingly, iSC suggested that the Centres, in collaboration with their regional and subregional partners, conduct similar studies in all subregions. The iSC has provided a second *"Progress Report on Regional Approach to Research"* (SDR/iSC:IAR/02/27), considered at the AGM'02 Stakeholder Meeting.

Two and a half years of work has led to a set of papers which are being put under a single green cover document. This activity is expected to continue in the context of CGIAR strategic planning and priority setting: the future SC would commission regional studies, particularly for Eastern and Southern Africa, South Asia and the Andean sub-region.

1.3 Poverty Related Studies

An understanding of the linkages between use of agricultural technology and poverty reduction is of much relevance to CGIAR's regional priority-setting in the context of the new Vision and Strategy, underway in all the regions. With the aim of mobilizing the System's vast knowledge on this theme, accumulated over many years, for creating guidelines for prioritizing investments, TAC requested IFPRI at MTM2000 to prepare a study report of the links between CGIAR research and poverty reduction. This report was made available to the Group at AGM 2001 in the context of its deliberations on the regional priority setting under Agenda Item 5c (Updates, Regional Priority Setting) of the AGM'01 Stakeholder Meeting. So as to rigorously ascertain causal linkages before drawing firm conclusions on the technology-poverty nexus in the different regional settings, TAC requested IFPRI to develop case studies to be made available to CGIAR's stakeholders. The IFPRI study will serve as a benchmark in pursuing further planned studies of the technology-poverty nexus at the regional level. SCOPAS will continue to identify a group who could undertake a formal modelling exercise, a task to be handed over to the new Science Council

1.4 Poverty Mapping

The iSC considers the use of GIS not only as a significant research tool for poverty mapping and poverty analysis but also to improve decision-making in allocating resources to research for maximum poverty reduction impact. In response to iSC's request, the CGIAR's Consortium for Spatial Information (CSI) provided two updates (SDR/iSC:IAR/02/12 and SDR/iSC:IAR/02/25) on the involvement of CGIAR Centres in the FAO-coordinated multi-institutional (CGIAR/TAC-FAO-UNDP-GRID ARENDAL) Global Poverty Mapping Project. Seven CGIAR Centres are now participating in the Global Poverty Mapping Project, supported by a grant from the Government of Norway.

1.5 Integrated Natural Resources Management (INRM)

During 2001, TAC prepared two documents, "*Evolution of NRM Concepts and Activities in the CGIAR*" (SDR/TAC:IAR/01/18) and "*NRM Research in the CGIAR: A Framework for Programme Design and Evaluation*" (SDR/TAC:IAR/01/24 Rev.1), distributed to the CGIAR Stakeholders at AGM'01. The first publication is a comprehensive summary of: pre-1996 CGIAR activity in NRM, the TAC study on priorities and strategies for CGIAR's soil and water research, recent thinking and activities on NRM, and TAC's currently evolving perspective on INRM in the CGIAR. The second study elaborated iSC/TAC's forward-looking thinking on CGIAR's priorities and strategies in INRM, and proposes a framework for programme design and evaluation.

At iSC/TAC 82 and 83, the Council agreed to prepare, in collaboration with the CGIAR Task Force on INRM, a document illustrating a set of successful INRM research cases. The cases would highlight the underlying INRM principles and how these were operationalized by Centres in addressing NR problems in the context of CGIAR goals. Excellent expression of interest had been registered by the CGIAR Centres.

An outcome of the iSC/SCOPAS's close collaboration with the CDC INRM Task Force has been to engage in the joint production of such a booklet. SCOPAS has been compiling these case studies, a preliminary draft of which had been distributed to iSC members and some INRM Task Force members for comments (INRM Case Studies Report. SDR/iSC:IAR/03/07).

Out of 16 cases submitted, seven that are actually operational in the field, within social constraints, have been selected. Modelling work cuts across gradients of various kinds. The booklet records how the CGIAR has translated vision into action.

The case studies reflect methodological advances in INRM, which are a major contribution to resource use optimization by way of integrated characterization, analysis, problem identification and formulation of research hypothesis. INRM has to be tackled in the context of ecosystem comprising several domains including biophysical, social, economic, infrastructure and political. While productivity was at the centre of all cases, attention was also being directed to ecosystem services and institutional arrangements for horizontal and vertical integration. In the cases selected, there is no concept of externality, and the question of missing market for environmental services, for instance carbon capture, is not addressed. SCOPAS has highlighted the importance of converting win-lose situations, in terms of environmental services, into win-win ones over time, through transfers of payment. It was suggested that a way forward concluding section should highlight what the individual INRM

frameworks are, where more INRM research is needed and how greater integration could be achieved. It is important to draw out the lessons for partnership, for science and for critical entry points so as to duly recognize the value of "I" in INRM through a different pattern of social organization.

iSC is to revise and publish this booklet in time for the INRM Task Force meeting in Nairobi in October 2003, prior to AGM 2003, to facilitate discussion on what is the state of the art, the priorities and the message. The draft will be externally evaluated by 3 to 4 experts in addition to the internal review by a number of iSC and INRM Task Force members. The volume, under a green cover, will be published in Rome in a format similar to the vision and strategy document. The collaboration with the CDC INRM Task Force, established over the past few years, needs to continue under the new Science Council.

1.6 Social Research Capacity in the CGIAR

At the initiative of TAC and interim Science Council, a Systemwide CGIAR Conference on Social Research, with the support of the CDC, was held at CIAT from 10-13 September 2002. Fifteen Centres were represented and several leading social scientists from outside CGIAR (universities, research institutes) attended with substantive papers. The iSC provided guidance and support to the Conference, and Michael Cernea and Amir Kassam attended. They contributed the following papers respectively: (a) *The Institutionalization of Social Research within the International Agricultural Research System*; (b) *An Overview of Social Science Research in the CGIAR*. The Conference analysed the content, quality and impacts of the contribution of social scientists (primarily non-economists) to the Centres and to the overall mandate and impacts of the CGIAR. Conference recommendations focused on the need for greater social and socio-cultural research capacity in the CGIAR, to ensure that research products effectively integrate biophysical and social sciences at all stages of technological research.

The Conference recommended, and the iSC approved, the publication of a volume including selected best papers from the Conference, and several additional invited papers from outside scholars, focussed on social research issues in CGIAR activities and development strategies. The social research in CGIAR volume will be jointly edited by Michael Cernea and Amir Kassam, and published as a book by CABI in the first half of 2004.

The studies in the volume address central issues of social research in CGIAR, reflecting the spectrum of experiences accumulated in various Centres with integrating social scientists with biological and natural scientists in multidisciplinary teams, the role and extent of social research on farmers as one of the distinct areas of CGIAR research, the methodological contributions to approaches taken in non-social research (particularly farmers participation in experiments), social assessment of client demands and needs, poverty aspects, gender dimensions, and many other aspects. Studies discuss also current options for strengthening this research in CGIAR Centres, potentials, constraints, difficulties, etc, and strategies for further improving the quality and impact of social research.

The Cali Conference also recommended, concurrent with the iSC decision to follow-up the Conference with a SC commissioned strategic study on social research in the CGIAR (objectives, methodologies, patterns of integration, results, staffing etc). This is a long felt need, yet such an analysis has never been undertaken and discussed by the iSC or by CGIAR's managers and ExCo. This task is now finally on its way, usefully begun by the Cali

Conference and is handed over to the new SC. SCOPAS would draft the TOR, subsequently handing over its organization and implementation to the new Science Council.

1.7 Food Safety

TAC had decided that FAO, in collaboration with WHO, be commissioned to prepare a "Think Piece" on food safety that would provide an input into the TAC proposed strategic study by an expert panel for the preparation of a strategic framework for food safety concerns in CGIAR research. The document should describe the food safety problems and issues and the research and development implications with a focus on the concerns and needs of the poor in the developing world. FAO has now completed the preparation of the Think Piece, which describes the trans-boundary nature of food safety problems and the trade and economic implications of food safety measures under the WTO agreement. Major food safety issues relate to microbiological and chemical contamination as well as to new technologies for increased production, quality and shelf life, where there may be uncertainty over the longer-term health effects.

CGIAR contribution was seen under three categories: (i) traditional areas of CGIAR interest dealing with production technology research, post-harvest research and policy research; (ii) contribution to food safety risk assessment where FAO and WHO have been at the forefront of the development of risk-based approaches for the management of health hazards in food; and (iii) linking research with real food safety needs by participating in the meetings of the inter-governmental food safety regulatory bodies: Codex Alimentarius Commission, the Global Forum on Food Safety Regulators and the regional food safety conferences.

FAO recommended that the iSC may consider commissioning the earlier proposed panel strategic study to assess priority research needs and opportunities for addressing food safety concerns in CGIAR research, and this was accepted by iSC/TAC 84. IFPRI is to be contacted as to their thinking and future goal regarding food safety, following which iSC would revise the TOR for the study. The study could be a joint initiative with CDC.

1.8 Biosafety Strategic Study

The iSC is under obligation to conduct an independent study on biosafety as called for by the Group at Durban. Realizing the need to clarify scientific issues related to gene technology applications so as to inform policy and regulatory instruments, iSC decided to conduct an independent study, as called for by the Group at Durban. The iSC/TAC 82 considered a revised study proposal entitled "*Proposed Study on the Safe Use of Gene Technology and Its Products*" (SDR/iSC:IAR/02/13 Rev.1). The study objectives are to: (1) identify the issues in the safe use of gene technology and its products that are relevant to CGIAR's mission, research activities, and partnerships; (2) develop principles of Best Practice to guide the CGIAR and the Centres in the safe use of biotechnology; and (3) advise the CGIAR on putting in place mechanisms/institutional capacity to monitor and timely respond to developments in this fast-changing field.

The suggested case studies, also covering vegetatively propagated crops, include: *Biodiversity* Gene flow from transgenic crops in Centres of crop diversity, including any potential impact on the CGIAR gene banks; *Biotic stress* Bt maize for release in Mexico and Kenya; *Abiotic stress* Salt-tolerant barley for North Africa and West Asia; *Livestock diseases*

gene-based delivery of a new vaccine for East Coast Fever in cattle in Africa; and *Fish Transgenic fish* for release in Asia and Africa. Information for the case studies would originate from interested Centres, with collaboration from the CDC.

An independent Panel of experts, chaired Dr. Brian Johnson (UK), Head of Agricultural Technology Group, English Nature, Dr. Nora Olembo (Kenya), Dr. Vir Chopra (India) and Dr. Ann Kapucinski (USA) were recruited in January 2003. Dr. Amir Kassam is from the iSC Secretariat is serving as the person while Dr. Gabrielle Persley is the Scientific Secretary. The panel has been conducting its work virtually and the Panel Chair presented a progress report on the study (SDR/iSC:IAR/03/10) at iSC/TAC 84.

Difficulty was experienced in identifying members with suitable skills and experience. The main body of information about biosafety would originate from a questionnaire, developed by the panel in early May and submitted to Centres via the Centre Directors Committee. The Panel will gain additional information from documentation as well as meetings and personal contacts with staff of other organisations and with the Centres. The Panel developed a detailed study plan and a means to monitor progress in Rome, around May 12-15, when it met key FAO staff. The introductory, scope and methodology sections have already been drafted, and Panel members' individual roles in writing the findings and recommendations sections have been agreed upon.

The Panel had set a deadline of mid-June 2003 for questionnaire responses. Data analysis and the bulk of writing were to be undertaken from mid-June to mid-July, with the first draft of the report scheduled by end-July, for consultation with Centres and other stakeholders. The Panel may then use the amended draft as the basis for a workshop at the AGM in Nairobi to gain input from a wider range of stakeholders. The final draft of the report with full recommendations will be available in November.

Interviews with FAO staff and other Centres-related personnel had already brought out certain key issues on which to seek the Council's views: (i) no formal Systemwide biosafety network to share skills, information and advice, and no dedicated resources to set up the same; (ii) no System-wide strategic framework to encourage Centres in biosafety capacity building, their role being unclear; (iii) little biosafety-related research within the Centres, this normally undertaken by commercial organisations as part of the product development phase of transgenic organisms. There is a risk that biosafety research may reveal unacceptable characteristics of LMOs or food derived therefrom, leading to rejection by regulators. The current approach to biosafety research may also unnecessarily prolong the time taken for technology transfer.

Given the prohibitive costs of developing and delivering "novel" GMO products as compared to "normal" GMO products (up to US\$ 100 million per product, depending on the construct and risk assessment cost, as against US\$ 4 to 5 million), the CGIAR had to identify key products on which to focus. A typology of different situations and costs can help CGIAR decide where to make the investment, in terms of key products, and where public sector institutions vis-à-vis private sector can do so.

A helpful contribution from the study would be to formulate a thorough process to make such priority decisions. Besides, the use of any proprietary information would call for a clearing house mechanism. The iSC has endorsed the study outline and timetable.

1.9 Ethics and Science in the CGIAR

Ethical issues and integration of ethical considerations into CGIAR's work apply not only to the development of GMOs, genetic resources, water management, animal and fish production, forest management, the environment but also to the way research quality is sought and sustained, the manner by which research products are made accessible and shared, and the relationship with partners, farming communities and other stakeholders. Efforts in the CGIAR have so far focussed mainly on ethical issues surrounding the conservation, use and enhancement of genetic resources. There have been CDC statements on GMOs and IPR that touch upon ethical considerations.

The iSC/TAC 82 considered a pre-proposal paper "*Ethics and the CGIAR*" (SDR/iSC: IAR/02/15) by Amir Kassam and Elena Moreddu which proposed the following objectives for a study: (1) assess the present CGIAR policies and the Centres' policies and practices of with regard to ethics; (2) identify the issues in ethics that are relevant to CGIAR's Mission, research activities, and partnerships; (3) develop principles of conduct to guide the Centres in the safe and ethical use of science, and in the development and dissemination of its products; and (4) make recommendations for a Code of Ethics for the CGIAR-supported Centres.

The iSC approved the proposal at iSC/TAC 82 to commission a broad-based discussion paper, by a Consultant experienced in the ethics of science, on the issues relevant to the CGIAR, which would delineate the scope of a subsequent strategic panel study to recommend a possible future ethical framework of policies and guiding principles of conduct. The whole process would take a year and a half or more, and SCOPAS has decided to hand over the topic to the new Science Council.

1.10 International Public Goods in an Era of IPR

Securing the protection of ideas and their use for CGIAR poverty and environmental objectives requires developing knowledge on Best Practice. The iSC/TAC 83 discussed a revised proposal entitled "*What strategies for the CGIAR to conduct research and deliver technological innovations that benefit the poor in a context of intellectual property rights?*" (SDR/TAC:IAR/01/28 Rev.1). The proposal called for three background papers: an iSC/TAC-sponsored survey of practices followed by CGIAR scientists to secure the freedom to innovate and to operate, in the context of the System mandate; (ii) development of *IP mechanisms* to access information on property rights and accessibility; and (iii) development of mechanisms to transfer innovations to *intermediaries* to secure sustainable benefits for the poor, applicable to seeds/agricultural technologies as well as NRM research. The three background papers could be discussed first in iSC/TAC as an integrated set and subsequently at a small workshop at ISNAR.

iSC endorsed a proposal that ISNAR's CAS prepare a background paper on how CGIAR scientists are handling IPR issues in relation to research and research products. However, it was felt that it would be useful to also ask groups outside the CGIAR, e.g., ISAAA on the help needed by the developing country NARS obtain access to proprietary products; and the Rockefeller Foundation on developing an IP clearing house, and on the interactions between US Land Grant Colleges and African NARS. iSC requested SCOPAS to prepare the TORs for the survey document as well as the external papers. Given proposal

implementation could take more than a year, SCOPAS has decided to hand over the item to the new Science Council.

1.11 ICT and the CGIAR

ICTs are essential tools for the CGIAR to access, store, maintain, process, disseminate and share information and knowledge besides enabling networking/partnership. Among their multiple roles, ICTs are particularly significant for capacity building within Centres and national partners.

At iSC/TAC 82, the Council discussed the paper "*ICT and the CGIAR*" (SDR/iSC:IAR/02/14). On that occasion, iSC agreed with the proposal from the outgoing chair of the CDC sub-committee on ICT, that an inter-Centre overview discussion paper on the role of ICT in the CGIAR Centres' linkage with NARS be prepared under the auspices of the sub-committee, which ISNAR could coordinate. Similarly, the Coordinator of the Consortium for Spatial Information (CSI) at CIAT was asked to prepare a discussion paper on the opportunities and potential for GIS-based ICTs in contributing to CGIAR goals at the global and regional levels. The assignments had been accepted by ISNAR and CSI respectively, and the current Chair has confirmed the proposal. However, with the papers still pending, both these ICT-related topics are being handed over to the new Science Council.

1.12 Animal and Fish Genetic Resources

At iSC/TAC 82, the iSC requested SCOPAS to develop two strategic concept notes in consultation with FAO and the concerned Centres on animal and fish genetic resources, highlighting developments at the global as well as CGIAR levels. With other priorities taking precedence, SCOPAS now intends to hand this item over to the new Science Council.

1.13 Effect of Decreasing Core Funding on the Quality and Innovativeness of Science in the CGIAR

The OED evaluation and several external reviews had highlighted the difficulties Centres are facing due to significant decreases in their core or unrestricted funding. SCOPAS voiced concern that the erosion of core funding was accompanied by erosion in science quality and innovativeness, and, under a continuing trend in decreased core funding, knowledge of the minimum level necessary to maintain science quality was essential. It was decided to launch a study on this subject, covering both CGIAR and non-CGIAR Centres e.g., NRI, on the basis of a statement describing the nature of the problem. This decision will be taken up by the new Science Council.

2. **STANDING COMMITTEE ON EXTERNAL REVIEWS (SCOER): MONITORING AND EVALUATION OF SCIENCE QUALITY AND RELEVANCE – ACTIVITIES FOR HANDING OVER TO THE SCIENCE COUNCIL**

2.1 **External Reviews of Centres**

2.1.1 Introduction

In fulfilling its monitoring and evaluation function, TAC/iSC conducts quinquennial external review of Centres. On average three Centres have been evaluated every year. The lead time for planning each review has been 18-24 months. By the end of 2003 iSC/TAC will have completed the reviews of IPGRI and ICRISAT.

Since 1991 external reviews have been organised in the form of External Programme and Management Review (EPMR). The iSC has been formulating a new framework for organising monitoring and evaluation in the CGIAR (Section 2.2.) These guidelines are in line with the terms of Reference of the new Science Council to develop new and streamlined evaluation procedures, including Centre reviews complemented by self-assessment of Centres.

The external review process in the CGIAR has been a subject of discussion, and is being re-designed. During the transition period pending endorsement, the external review calendar has been maintained (See Attachment 1), and the CGIAR-approved Terms-of-Reference for EPMRs will be used. The IPGRI review followed the EPMR format while the ICRISAT review included a separate but linked External Programme Review (EPR) and External Management Review (EMR). The iSC has reviewed reactions to this mode of conducting programme and management review separately from its members, the Panel Chair, the Centre, the CBC and CDC, as expressed in their joint statement to the ExCo in 2003, a major donor and concludes that the separation did not add value to the overall external review process. In line with the thinking of the CDC and the CBC, the SC as an external and independent body may wish to further develop a single review integrating both programme and management aspects of Centre activities, which it would commission on behalf of the Group.

The ICRISAT review provided positive lessons for streamlining the evaluation process in terms of preparatory work and documentation requested from the Centre, Panel time spent at the Centre, size of the Panel and use of virtual mode for preparing the report. In planning for the forthcoming IRRI EPMR, the iSC plans to apply the innovative elements of the ICRISAT external review working together with the Chair of the review. Development of revised Terms of Reference and guidelines for external reviews as part of an overall evaluation and monitoring process in the CGIAR is handed over to the Science Council, pending on Group decisions.

2.1.2 ICRISAT External Review

The 5th External Review of ICRISAT has been completed on schedule. In this external review, the iSC conducted an External Programme Review (EPR) while the CGIAR Secretariat was responsible for the Management review. Lessons were drawn for further development of the Centre Review process.

The Panel for the programme component consisted of: Dr Paul Vlek (Netherlands), as Chair, Dr Dunstan Spencer (Sierra Leone), Dr Desirée Hautea (Philippines) and Dr Anthony Hall (USA) as Members, and Dr Amir Kassam of the iSC Secretariat as Resource Person. The EPR began with an initial visit to ICRISAT headquarters in March 2003 (from 12 to 18) by the full Panel and the Panel Secretary. Field visits were conducted to sites in Africa: Drs Paul Vlek and Dunstan Spencer visited Mali and Niger 13-16 May and Drs Desiree Hautea and Amir Kassam visited Zimbabwe and Kenya 4-10 May. The Main Phase was conducted between 16 and 26 June 2003 at ICRISAT for validating the preliminary findings and revising draft chapters. The EPR Report was submitted to iSC in mid-July for discussion by iSC at iSC/TAC 85 in August, ExCo in September and the Group at AGM in October 2003.

The iSC will submit a commentary on the EPR Report to ExCo and AGM'03.

2.1.3 *IRRI EPMR*

The EPMR of IRRI had been commissioned by iSC for implementation starting in late 2003 and completion in 2004. The IRRI Board meeting is held in Bangladesh 10-12 September, 2003. The iSC Secretariat has been collaborating with the CGIAR Secretariat on organising this integrated programme and management review.

The Review Panel comprises the Chair, Dr. Richard Flavell and four members and it will cover several areas of expertise including: crop improvement; crop and resource management; socioeconomics, policy and institutional issues; and governance and management. The CGIAR Secretariat has identified Mr. John Griffith to cover the Governance and Management slot. The iSC Secretariat is processing the selection of the remaining Panel members in collaboration with the SCOER Chair and the Panel Chair. The EPMR will be supported by consultants (if required), and resource persons from both the iSC and CGIAR Secretariats. The major issues for IRRI included its future directions regarding biotechnology and genomics research and applications.

The tentative schedule is: attending the IRRI BOT Meeting in Dhaka, Bangladesh, 10-12 September; an Initial Phase lasting 3 to 5 days during late November-early December at IRRI headquarters; a Main Phase of 7 to 12 days at IRRI during March 2004; field visits between the two phases, submission of the Panel's report to IRRI Board and Management in April 2004; submission to the Science Council in April/May 2004; subsequent submission to ExCo and to the Group at AGM'04.

During the period of transition pending the design and approval of new procedures, the iSC and CGIAR Secretariat were following the existing CGIAR-approved Terms of Reference covering EPMRs of Centres. The SC needs to consider the lessons learned from the ICRISAT Review and subsequently modify the guidelines for implementing the forthcoming external reviews. New Terms of Reference may be developed depending on the Group's guidance.

2.1.4 *IFPRI EPMR*

The iSC has commissioned the EPMR of IFPRI. Its implementation would start in 2004 to coincide with IFPRI's next annual Board meeting. IFPRI had provided suggestions for Panel Chair and information on important dates, internal reviews and processes. The

Centre is planning to commission one CCER in preparation for the EPMR. The iSC members were given a preliminary short list of Panel Chair candidates for discussion during the closed session at iSC/TAC 84. The SC needs to take up the issue of finalizing selection of Panel Chair and members, if the Review is to be implemented and completed in 2004.

2.1.5 EPMRs of CIMMYT, CIFOR and ICRAF

The External Review of CIMMYT has been postponed at the request of the Centre to start in 2004. The subsequent reviews would include the 2nd EPMR of CIFOR and 3rd EPMR of ICRAF. In view of the transition and the on-going discussion on the evaluation process, these three reviews are passed on to the SC for taking up at the earliest opportunity.

2.2 Changing Monitoring and Evaluation in the CGIAR System

Since its inception in 1971, the CGIAR System and Centres have developed an elaborate system of monitoring and evaluations, comprising the following: 1) periodic CGIAR System Reviews to evaluate overall CGIAR System performance, three carried out since CGIAR's founding since 1971; 2) External Programme and Management Reviews of Centres (EPMRs) commissioned by iSC/TAC every five or six years to evaluate programmes and management of respective Centres; 3) TAC-commissioned External Reviews of Systemwide Programmes, for instance Systemwide Genetic Resources Programme, Systemwide Programme on Integrated Pest Management; 4) TAC-commissioned Inter-Centres thematic Stripe Reviews to evaluate high-priority themes, for instance Inter-Centres Roots and Tubers, Review of Plant Breeding Methodology; 5) Centres Board Commissioned External Reviews (CCERs) to evaluate relevance and quality of science in specific research programmes or of operation and management; 6) Centres-managed Reviews or internal mechanisms to ensure quality control on science and management, for instance audits, staff performance assessments; 7) donor-commissioned Project Reviews, typically at project closure or at specific intervals. Some reviews may be designed to feed into a future evaluation, for instance a CCER as an input into an EPMR.

As for External reviews, the CGIAR has established a tradition to provide transparency and accountability to investors (CGIAR members) and other stakeholders. Although the EPMR model has significant merit and has served the System well, the Third System Review (Strong et. al, 1998) recommended the review process be streamlined, on account of a number of concerns: 1) experience showed the potential for complementarity and efficiency gains by harmonizing and streamlining the different types of external review (EPMR, CCER, SWP Review); 2) with an increasing proportion of Centres' research funded through targeted projects, frequent individual reviews by investors has led to "exaggeration" as compared to other R & D organizations, taking a high toll on scientists' and management's time; 3) EPMRs entail long time periods for preparation and implementation, with associated high cost-to-value ratio; 4) the CCERs' inability to assess science quality and impact and thus failing to fulfil the aim of reducing the EPMR panel size and time spent on the main review; 5) progressively greater uniformity in management approaches across Centres lending itself to monitoring and evaluating management performance across Centres rather than periodic assessments of individual Centres through EPMRs; 6) the 5-year cycle of external reviews deemed inadequate to track a Centres' evolution and, if need be, administer timely corrective action.

Based on these concerns, the iSC developed ideas for change in CGIAR's Monitoring and Evaluation (M & E) system. Following a request from the Group, the iSC employed a broad consultative process with a wide range of stakeholders and prepared a paper entitled *Changing Monitoring and Evaluation in the CGIAR System*. During iSC/TAC 84, it was decided that the iSC paper, in its final form, should be distributed to ExCo members and submitted to the Group at AGM'03.

To capitalize on the potential for efficiency, there is a need to build a genuine evaluation and impact culture in the System, starting at the level of each Centres scientist. An expected outcome of a "new" M & E approach is to simultaneously better satisfy the needs of investors as well as other stakeholders, for instance NARS partners, and thus concomitantly lowering the necessity for Special reviews and duplication of effort. The new approach is in line with that of most research organizations, relying heavily on self-assessment, peer reviews and oversight by a Board of Trustees. This is a theme which the SC could take up with the Group in the future. Upon CGIAR's approval, the SC would have the task of drawing up specific procedures for the different types of review and provide for a transition period.

2.3 Development of Performance Indicators for the CGIAR

The ExCo has initiated a process to develop performance indicators for the CGIAR. This process draws from the report of the Working Group on Science Council, which recommends that SC should develop a new system of criteria and indicators for implementing the evaluation process. The iSC Secretariat representative has involved in the initial stages, which will results in recommendation to the Group at AGM'04 on options for proceeding. The draft document recommends that the SC will lead the effort to design indicators of science outputs and quality.

As the activity was initiated at the very end of the term of the iSC, it could not effectively be involved in the planning. The SC should follow up on this activity and take leadership in performance aspects relevant to its Term of Reference.

2.4 Systemwide Programme Reviews

The review of the Systemwide Programme of Alternative to Slash and Burn was initially planned to start at the end of 2003 but has been postponed to 2004 due to the transition from iSC to SC. The review has been planned by SCOER and SPIA jointly as it will include an element of in-depth impact assessment (Section 3.1.8). The detailed timetable has been left open. In iSC/TAC 84 the iSC approved a short list of Panel Chair candidates and the Terms of Reference for the review. The final selection of the Chair and members and implementation of the review will be handed over to the SC.

The reviews of systemwide programmes of Participatory Research and Gender Analysis (PR&GA) and Water Nutrient Management (SWNM) are handed over to the SC for implementation.

2.5 Review of Capacity Strengthening in the CGIAR

The study on Evaluation and Impact Assessment of Training in the CGIAR is jointly planned and organized by SCOER and SPIA and is presented under Section 3.1.5. This study was originally planned as the first stage of evaluating capacity strengthening in the CGIAR.

The experiences from this study in terms of methodology and processes could be used in evaluating other kinds of capacity strengthening.

2.6 Development of the Roster of Scientists

At AGM'02 the CGIAR endorsed the report and recommendations of the Executive Council's Working Group on Science Council (WGSC). One of the recommendations for SC's functions was catalysing and mobilizing global science and technology expertise. The main tasks in this function include the development of a peer-reviewed Experts Roster. The SC was to:

"Develop, in collaboration with the Centres, the System Office and external partners, a Roster/Inventory of the most active and committed researchers in agricultural and related sciences. The Council should establish a peer-review based evaluation System to facilitate decisions on inclusion of scientists in the Roster/Inventory."

SCOER, at its 39th Meeting in June 2003, discussed a proposal for managing the Roster of Experts and establishing an electronic database, including a preliminary design for an easily searchable Experts Database on the Internet. The proposal discussed by SCOER and submitted to the iSC outlining current databases maintained by different System Office units. The proposal also described: the potential characteristics and structure of the new SC database; steps for developing a peer-reviewed database; and potential database organization and functions.

Currently the TAC/iSC Experts Index contains some 2400 names, most CVs being older than five years. Full CVs or short biodata are available in electronic format for 600 persons,. Work is underway to enter this information into a database searchable by discipline, nationality, region, age and gender. During the data entry, priority has been given to persons who have served iSC/TAC in recent reviews, studies and peer reviews of Challenge Programmes. The iSC Secretariat will continue screening the current roster CVs for inclusion in the database. A priority is to solicit from the iSC members their knowledge and opinions on the suitability of the listed persons for future review purposes. An important aspect of the iSC database is the confidential information on experts accumulated from Panel Chairs, TAC/iSC members and TAC/iSC Secretariat staff both from external reviews and CP peer reviews.

The iSC broadly approved the proposal by SCOER, and decided to hand over the establishment of the electronic database to the SC, for its consideration in the context of the needs particularly as related to the tasks of the Standing Panels on Monitoring and Evaluation and in Mobilising Science.

2.7 Challenge Programme Review

The iSC has reviewed the full proposal of the Sub-Saharan Africa CP submitted to it by FARA on July 30 2003. In the evaluation process the iSC drew from commentaries provided by external peer reviewers. SCOER was responsible for preparing a short list of external reviewers. The reviewer list was drawn from the iSC database of experts, from suggestions provided by the CP proponents and from recommendation of the iSC members.

The iSC did not approve the proposal as originally submitted, but suggested in a draft commentary to FARA that a stepwise implementation process be used. FARA immediately revised the proposal outlining plans for a two-phase implementation including an Inception Stage to help define partnerships, location and themes for an initial three Pilot Learning Sites (PLSs) in Phase I, followed by full implementation in Phase II. The iSC believes that the general concepts and process are suitable for a CP of this type. However, it did not endorse the revised proposal, which it found lacking in terms of identification of the primary partners for each part, clear identification and articulation of the suggested PLSs, problem definition, research objectives, expected outcomes and the specific roles of the CGIAR centres. The iSC recommended that the proponents be asked to submit a revised full proposal to the Science Council.

3. STANDING PANEL ON IMPACT ASSESSMENT (SPIA): REPORT ON RECENT ACCOMPLISHMENTS AND PENDING BUSINESS FOR THE NEW SCIENCE COUNCIL

3.1 Current Status of SPIA activities

Given the importance that CGIAR members assign to independent and transparent assessment of the impacts of their CGIAR investments, the current SPIA wants to help ensure that there is a smooth transition to an active and relevant new programme of impact assessment under the new Science Council. Thus, what follows in this section is a discussion of on-going, agreed upon activities being undertaken by SPIA together with recommendations for their successful completion. In Section 3, SPIA, based on its experience over the past years, provides discussion and recommendations on how to proceed with on-going impact assessments that have planned timeframes beyond mid 2003, and on promising new activities that the Science Council might consider for the future.

Many of the activities mentioned below were discussed in SPIA's report to AGM'02 and have been widely discussed by the Members. Brief updates are provided here on this older set of activities. In several cases, SPIA has recently completed or is soon about to complete activities and/or publish final reports, e.g., the germplasm enhancement impacts study, the environmental impacts assessment, the proceedings of the Costa Rica IA conference, and the B-C meta-analysis. The IFPRI led poverty impacts study also has been ongoing for some time, and significant progress has been reported at several CGIAR meetings. The current SPIA report provides revised plans for bringing this activity to a successful completion within the coming year and moving poverty impact assessment into Centres as a mainstream activity.

3.1.1 Germplasm Improvement Impact Study

With the publication of the book "Crop Variety Improvement and its Effect on Productivity: The Impact of International Agricultural Research" (eds. Evenson and Gollin) in April, this IAEG/SPIA activity draws to a close. The 23-chapter book published by CABI documents the regional and global productivity, income and nutritional impacts of CGIAR Centres and NARS partners through their sustained efforts in crop germplasm improvement. The book has been widely circulated (182 copies distributed), to CGIAR members, CGIAR Centre directors and board chairs and to a range of CGIAR stakeholders and friends. A

summary of the main findings of this study was published by Evenson and Gollin in *Science* ("Assessing the Impact of the Green Revolution, 1960-2000," *Science* 2 May, 2003).

Status: Study completed; no follow-up envisioned at this time.

3.1.2 Conference on Impacts of Agricultural Research and Development: Why has Impact Assessment Research not Made More of a Difference?

The main outcomes of this SPIA/iSC and CIMMYT sponsored conference, held in San Jose Costa Rica in February 2002, are reported in a summary of proceedings book which is in publication. With over 145 people attending, this conference was the largest gathering in CGIAR history of the international agricultural research ex-post impact assessment (IA) community. The 4-day conference provided an opportunity for IA professionals to update their knowledge and skills in relation to both conceptual and empirical approaches to impact assessment while engaging in extensive discussion and networking. Participants highlighted experiences and case studies of impact measurement in the following areas: agricultural productivity; equity, poverty, social health, nutrition, the environment, and, institutions and human capital. Participants also described novel approaches to hard-to-measure impacts in such areas as: training and capacity-building; institutional strengthening; networking; participatory research; and policy research.

In addition to the summary proceedings volume, the *Quarterly Journal of International Agriculture* is devoting an entire issue (Vol. 42/2) to "Assessing the Impacts of Agricultural Research: Theory and Evidence", comprised of one set of papers presented at the Conference, including an introductory one co-authored by the SPIA Chair and Secretary together with P. Pingali and M. Morris. A second set of papers from the conference is being published in a special issue of *Agricultural Economics* (Vol. 29/2) "Returns to Investment in Plant Genetic Resource Conservation and Crop Improvement Research" and a third set of papers are being published in a special issue of *Agricultural Systems* on "Learning for the future: Innovative approaches to evaluation of agricultural research". SPIA was very pleased with the overall high quality of papers presented at the conference and later published in various fora and wishes to put on record its appreciation to both Prabhu Pingali and Michael Morris for their diligence and commitment to this effort.

Status: Activity completed; no follow-up envisioned at this time.

3.1.3 Environmental Impact Study

The second of two reports emanating from this study, "Environmental Impacts of the CGIAR: An Assessment" by Michael Nelson and Mywish Maredia, has been revised taking into account comments and concerns about data and methodology used in the earlier version. While some of the quantitative results have changed, i.e. are more conservative, the main findings have not changed: Contributions by the CGIAR in the areas of germplasm enhancement and agronomy have permitted significant yield increases in farmers' fields, thus leading to less land being required to produce a given quantity of food crops. At the time of this writing, the Panel report is with SPIA for final review. The other report by Mywish Maredia and Prabhu Pingali, addressing the negative impacts of productivity enhancing research and entitled "Environmental Impacts of Productivity-Enhancing Crop Research: A Critical Review", was published last year.

Status: Publication of Nelson & Maredia report (or appropriate journal article) after final review by SPIA members.

3.1.4 Impact of the CGIAR on Poverty Alleviation

Background: The first phase of this two-phase project, completed in 1999, involved a review and synthesis of the literature on the links between agricultural research and poverty and a workshop to develop methodologies for further CGIAR impact studies. The second phase, which began in September 2000, focuses on seven case studies involving a range of countries, different CGIAR Centres and types of CGIAR research, e.g., in terms of commodity and regional coverage and scale of impact (see Table 1). These studies have two main objectives: (1) to test empirically methods for evaluating the impact of agricultural research on poverty in the context of different agricultural technologies and within different country, social, and institutional settings; and (2) to develop a conceptual framework that CGIAR Centres can draw upon for impact assessment work, and that will also serve to guide priority-setting and technology design to increase the impacts on poverty. To accomplish these objectives, five of the first seven case studies used the sustainable livelihoods conceptual framework

The project is managed by IFPRI although each case study is led by a senior researcher (usually an economist) at the respective CGIAR Centre, who works with senior social scientists (economists and sociologists) from national research institutes or universities and a team of less experienced social scientists for the purpose of capacity development. An External Advisory Committee (EAC) meets once a year (see previous SPIA Report for further elaboration and background to this project).

Table 1 - Wave 1 case studies of impact of agricultural research under the IFPRI/SPIA project

Country	Technology	Case study leader	Lead CGIAR Centre
Bangladesh	Modern rice varieties	Mahabub Hussein	IRRI
Bangladesh	Polyculture fishponds Improved vegetables Modern rice varieties	Kelly Hallman	IFPRI
Kenya	Soil Fertility Replenishment	Frank Place	ICRAF
Zimbabwe	Modern maize varieties	John Hoddinott	IFPRI
Mexico	Creolized maize varieties	Mauricio Bellon	CIMMYT
China	Agr. research investments*	Shenggen Fan	IFPRI
India	Agr. research investments*	Shenggen Fan	IFPRI
* Uses econometric analysis of secondary data rather than sustainable livelihoods approach with integrated social and economic impact assessment			

Recent progress: SPIA reported on the key developments of this project at the last CGIAR annual meeting in Manila (see SPIA Report to AGM'02). The following highlights the progress made since October 2002.

All draft final reports on the five case studies using the sustainable livelihoods framework have been submitted, and reviews completed for three case study reports. The Zimbabwe final report has been revised and the contract complete. Research results from three of the five studies and the synthesis were presented on a panel organized for the International Conference on "Staying Poor: Chronic Poverty and Development Policy", University of Manchester, Manchester, England, 7-9 April, 2003. A presentation on combining qualitative and quantitative methods to study vulnerability, using examples from the poverty impact case studies, was given at an IFPRI-World Bank Conference on Risk and Vulnerability: Estimation and Policy Implications. September 24, 2002. A retreat was held on December 4-5, 2002 with the four study managers to review study results and brainstorm for the synthesis report. A first draft synthesis report has now been completed. A workshop was held at IFPRI on February 4-6, 2003 on Institutional Learning and Change (ILAC), to develop ideas for ILAC follow-up for Wave 1 case studies, and for integrating ILAC into new poverty impact studies. A dissemination and communications strategy was developed, including timeline and budget.

Specific study update:

Bangladesh (IRRI) study: Draft report has been completed and comments received from 2 of the 3 EAC members.

Bangladesh (IFPRI) study: Draft report has been completed and comments received from 1 of the 3 EAC members.

Zimbabwe (IFPRI) study: The draft long and short reports were revised, revisions approved and this contract is complete. The short report has been distributed in Zimbabwe to all participants in the original study planning stakeholder meeting held in February 2001.

Kenya (ICRAF) study: The draft long and short reports have completed, reviewed by the EAC, and revisions are underway.

Mexico (CIMMYT) study: The draft long and short reports have completed, reviewed by the EAC, and revisions are underway

China and India (IFPRI) studies: Analysis of the impact of sub-national level data in China and India has been extended to econometrically estimate the impact of agricultural research on urban poverty.

Workshop on Institutional Learning and Change (ILAC): This workshop was attended by approximately 30 representatives from CGIAR Centres, universities, research institutes, SPIA and the Rockefeller Foundation, including experts on ILAC and CG research managers and researchers interested in developing ILAC in their programmes and projects. SPIA consultant David Raitzer presented a paper on "Institutional Learning in Impact Assessment: Lessons from SPIA's Benefit-Cost Meta-Analysis of the CGIAR". A new CG working group has formed to network on ILAC and a new proposal is underway for advancing ILAC in the CGIAR, and for the new case studies.

Dissemination of outputs: Three journal articles and one IFPRI research report were published and five conference papers presented at the International Conference on Staying Poor: Chronic Poverty and Development Policy, University of Manchester, Manchester, England, 7-9 April, 2003. Another paper was presented at the IFPRI-World Bank Conference

on Risk and Vulnerability: Estimation and Policy Implications. IFPRI, Washington, D.C., September 24, 2002.

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Status: A final set of dissemination/outreach activities funded by SPIA are now underway (see SPIA Report to iSC 84).

3.1.5 Training Evaluation and Impact Assessment

Background: As a follow up to the third System Review, TAC decided to address the role of the CGIAR in NARS strengthening as one of the priority strategic issues. In TAC 79 the committee commissioned a review of capacity strengthening in the CGIAR, which the study of Evaluation and Impact Assessment of Training activities is the first part of. SPIA and SCOER have been jointly organising this study.

The CGIAR explicitly embraces the objective of contributing to the enhancement of the capacities of NARS in the developing countries. All CGIAR Centres participate actively in capacity strengthening, and training is a major capacity strengthening activity that nearly all Centres have been organising since their inception. Training and other capacity strengthening activities are often implicitly considered as having had even more far reaching positive impacts toward achieving the ultimate goals of the CGIAR, than the research results *per se*. However, the current context of alternative training providers, new modes of channelling capacity strengthening activities, and declining funding is forcing the CGIAR Centres to prioritise and redesign their capacity strengthening strategies. The training study is expected to provide information that will guide the CGIAR and the Centres in setting relative priorities regarding training focus, identifying effective strategies for CGIAR training activities at the System level, and enhancing coordination of training as part of other capacity strengthening activities.

Recent progress: Due to the transition of TAC into a Science Council, the commitment for the Main Study was made only in 2003. The Main Study will be carried out by a small Panel with Dr Elliot Stern as Chair and Drs John Lynam and Lucia de Vaccaro as members. In addition, regional resource persons will be contracted to assist in field surveys. The outline of the study plan is presented in the Terms of Reference to the Panel, approved by the iSC and SPIA. The TOR also includes a proposal for the study design. The Panel will define the study design and methodology in close collaboration with the relevant members of the SC and its Standing Panels.

The iSC Secretariat has been developing a short list for selecting regional resource persons by drawing from stakeholder consultation in the autumn of 2002, the short list for Panel membership and contacts with the Centres..

The Desk Study provides data and information for the Main Study, covering a period since 1990. The draft report was presented to iSC and SPIA members in the June meeting. A working draft has been completed since and it has been shared with the Chairs of SPIA and SCOER and the members of the Panel. It contains a report with 22 annexes on: i) the overall strategies, processes, organization and scope of training conducted by the Centres; ii) summary of data for those Centres that provided adequate data; iii) generic model on CGIAR training activities developed on the basis of information collected; iv) issues emerging from the recent EPMRs; and information on impact studies and evaluations on Centres training since 1990. Due to the incomplete nature of some of the data gathered, the document is for

the time being only for internal use and the Panel will decide whether more data ought to be collected from the Centres in order to form a more accurate impression of training activities in the System level.

Status: The iSC Secretariat is working with the Panel Chair to prepare for a meeting initially planned in November for finalising the study approach and methodology. The field work and other data collection for the Main Study is planned to begin in 2003 and continue in 2004. The study report will be submitted to the SC in July 2004 and to the Group at AGM'04.

3.1.6 CGIAR Benefit - Cost (B-C) Meta-Analysis

Background: Since establishment in 1971, the CGIAR has invested some US \$ 7 billion in various research and research related activities. In an era characterised by "donor fatigue" and scarce development resources, it is appropriate to ask: *Do the benefits from CGIAR research justify the total investment in the CGIAR so far?* This study proposes to resolve on a preliminary basis whether the *entire* investment in the CGIAR over time can be justified on the basis of the benefits derived from its proven (and widely-recognized) major successes. One reason for the possible failure of prior impact analyses to offer very convincing evidence for continued donor interest is the criticism that such assessments have focused on the costs and benefits only of research successes, while ignoring the costs of failures or "dry holes." The present analysis offers an answer to such criticism by compiling reliable estimates of widely recognized benefits, and comparing such against the total investment in the System to date. Such an approach has already proven successful for other agencies and entities. While the CGIAR has been long considered a driving force behind the success of the Green Revolution, no prior study has attempted to develop an aggregate estimate of the value of the System's impacts.

Activities and methodological approach: Working under the guidance of the SPIA Chair and Secretary, a consultant was hired from July through November 2002 to undertake the meta-analysis. Economic impact studies for inclusion in the meta-analysis were selected based on a literature survey of publications databases, examination of reference lists from prior studies, and scrutiny of Centre publications. Since impact assessment has been pursued in a largely decentralised manner, standards and approaches differ significantly among studies, and, hence, a critical review process was necessary for determining the reliability of generated results. To develop the conceptual grounding for such, best practices were identified for economic impact assessments. Two overarching principles for evaluating study reliability, namely transparency and demonstration of causality, as well as accordant criteria and indicators were developed from the identified best practices. Using specific criteria for transparency and demonstration of causality, five benefits scenarios were developed. These scenarios include 1) a scenario only including highly-rated studies that empirically attribute benefits to specific activities of the CGIAR, rather than arbitrarily partitioning benefits from efforts in collaboration with partners, 2) a conservative scenario of only highly rated "significantly demonstrated" studies, 3) a selection of "plausible" studies meeting minimum standards for the criteria described above, 4) a "plausible, extrapolated to the present" scenario in which benefits for the crop genetic improvement studies are assumed to continue from the study period to the present and 5) a "plausible, extrapolated to 2011," which assumes that the benefits stemming from current research will continue to be realised at present rates until 2011.

Summary of major results: Against an aggregate investment of 7,120 million 1990 US dollars (including relevant pre-CGIAR costs), all scenarios produced benefit-cost ratios in substantial excess of one, indicating investment efficacy. Including only “significantly demonstrated” studies that empirically attribute CGIAR derived contributions to collaborative efforts results in a ratio of 1.94, while if all “significantly demonstrated” studies are considered, with assumed attributive coefficients applied, the ratio rises to 3.77. The “plausible” scenario results in a ratio of 4.76, while when extrapolated to the present this rises to 9.00, and extrapolated to 2011, this becomes 17.26. The true value of benefits arising from the CGIAR is probably in excess of even the upper bounds of the results generated, as only a small subset of CG derived impacts have been assessed. Anecdotal evidence suggests that these are not the only areas of CGIAR research success, so there is substantial scope for expanded impact coverage, and better illustration of how CG activities influence target beneficiaries. Furthermore, even where economically assessed there still remain significant opportunities for improving the methodological rigour, comprehensiveness, and transparency of System assessments.

Finally, the diversity of methods employed among Centres and research programmes appears to indicate that more guidance on best practices for ex-post impact assessments within the System would offer considerable potential to improve consistency and raise analytical standards. However, for this to be effective, it will be necessary for the “clients” of impact assessments to articulate expectations for substantiating different types of impact claims. In the absence of such, it is difficult to select one of the six scenarios as most “accurate,” and the “true” benefit-cost ratio of the CGIAR investment will remain unresolved.

Final report: A first draft report of the study produced by the consultant was circulated to SPIA members in December 2002. Working closely with the SPIA chair and secretary, the consultant incorporated most of these comments into a revised draft report, which was subsequently sent out for review to six external referees—knowledgeable experts in the field of impact assessment. The full sets of reviewers’ comments were considered by both the consultant and the SPIA chair and were taken into account in developing the third draft (current version) of the report. The draft report was circulated to iSC members for discussion at iSC 84, and the final report will be published soon.

Future work: A second phase of the study is now under consideration. It would help to address the need for a greater degree of consensus from investors as to their expectations regarding ex-post IA, as noted in the first phase. For the purposes of eliciting client opinions of different scenarios, studies and standards, and using these as a basis for further analysis, a workshop is planned later in 2003 in which participating donors would be asked to present short summaries of content, strengths, weaknesses, and points for improvement of a specific CGIAR ex post IA study. This would help articulate in clearer and more definitive terms the needs and expectations of one of the primary users of ex post IA studies. Patterns of expectations evident in the conference would be distilled into minimum IA standards broadly acceptable to IA audiences. Once standards are established the studies reviewed would be revisited along with additional and/or revised IA studies the IARCs submit for inclusion. The resulting aggregate benefit values would be implicitly acceptable to main IA audiences and insights from the critical review could provide a strong basis for the Strategic Guidelines document (see below). The major outputs of Phase II therefore would be a workshop in which focused dialogue is established among impact assessors and intended audiences so that clients of IA research articulate minimum standards for impact claims and a secondary

analysis and report of the aggregate benefit ranges produced in the light of these elicited expectations. Peer reviewed journal papers and short briefs specifically targeting donors' needs will also be produced.

Status: Phase I nearly completed; Phase II under consideration.

3.1.7 Strategic Guidelines for IA in the System

Background: The need for establishing strategic guidelines for IA studies in the CGIAR has been reinforced at the last two major CGIAR sponsored IA conferences. These guidelines are not envisioned as a detailed step-wise 'how to' manual for carrying out IAs, but rather as a set of basic principles and discussion of strategic issues, including user needs, for IA in the System. The guidelines would cover issues that help link what users of IAs need (donors, planners, administrators) with what IA practitioners can provide, given resource, and time and data constraints. It would explore basic issues such as criteria for plausibility in IAs, attribution, development of counterfactuals, log frame and impact pathways analysis, and issues related to credibility, feasibility, transparency, and communication. Donors are keenly supportive of developing this set of guidelines, since they believe that such a document also would be helpful to them in establishing internal guidelines for judging IAs and explaining them to funding and political bodies.

Activity to-date: Last year SPIA developed a preliminary annotated outline for the Guidelines. The draft outline was subsequently revised following a number of helpful comments and suggestions from selected individuals, including iSC members, and some interested donors. EIARD members and USAID, in particular, are quite interested and supportive of this work and are expected to be close partners in developing these guidelines, along with CGIAR Centres. The major output from this activity will be a set of principles and 'best practices' strategies to guide ex-post impact assessment work done by the Centres and partner institutions.

Future work: Although initially a consultant was to be hired to help draft and finalise the guidelines, in collaboration with SPIA members and a range of stakeholders, it is now felt that this activity could benefit substantially from, and thus should be closely integrated with Phase II of the B-C Meta-Analysis. Furthermore, this could be of considerable relevance to the NRM IA activities which have just been initiated. Accordingly, hiring of a consultant to help finalise the guidelines will be deferred until later in the year. In collaboration with CIFOR, SPIA has developed and sent out a survey questionnaire to CGIAR members and other stakeholders in an effort to better understand donor views about the major purpose(s) of and demand for ex post impact assessments in the CGIAR. David Raitzer will be tabulating and analysing responses for SPIA. Consideration is also being given to organizing a very small workshop with selected Centre IA focal points and key donors (probably in early 2004) at which time draft guidelines could be presented and subsequently modified prior to finalisation. Of particular relevance to this study is a mini-symposium being held at the IAAE meetings in Durban in August to discuss issues related to defining IA 'best practices', at which preliminary results of the investor survey have been presented.

Status: On-going. Preparation of paper identifying key issues in relation to 'best practices' in IA, and distribution to CGIAR members of the survey intended to elicit donor views about ex-post impact assessment.

3.1.8 *Impact Assessment of NRM Research in the CGIAR*

Background: Early in 2003, the CGIAR Director asked SPIA/iSC to initiate a connected set of activities that would eventually give donors a better idea of the impacts of their past investments in natural resources management (NRM) research in the CGIAR. The need for this initiative derived mainly, but not entirely, from the recent World Bank/OED meta-analysis of the CGIAR and its conclusion that there was a serious dearth of quantitative evidence on the impacts of NRM research in the CGIAR. While Centres have undertaken a number of evaluations of NRM activities, not many have gone beyond a description of outputs and analysis of adoption in some cases. Much more evidence of impact from a wide variety of NRM research is needed, as this category of research represents a rising share of the CGIAR portfolio.

Workplan and approach: After several rounds of discussion involving iSC members, the CGIAR Director and several Centre Directors General, SPIA developed a NRM IA activity workplan and budget for this study. The work plan covers three main activities in this initiative to understand better the impacts of past investment in CGIAR research related to NRM. The three activities are:

1. Development of improved methods for assessing NRM impacts;
2. Empirical evidence of impacts from Centre activities; and
3. Empirical evidence of impacts from Systemwide NRM activities.

Ideally, activity 1 would be undertaken prior to the other two. However, due to the urgency of gaining a better perspective on the actual impacts of CGIAR activities in this area, it is proposed that the first two activities be undertaken simultaneously and immediately. The third, which is being planned jointly SCOER, is targeted for implementation toward the latter part of the year. SPIA will act as the main implementing body for these activities, although Centre input will be essential to the successful completion of the activities, and particularly for activity 2, which will have Centre input in developing an operational plan of action. It is stressed that this initiative is focused on ex-post impact assessment. The resources provided to SPIA and the Centres to undertake this initiative are a direct response to CGIAR investor interest in understanding better the impacts of their past investments in NRM research in the CGIAR.

Specific activities: For Activity 1, SPIA is in the process of recruiting an expert in the area of NRM IA as a consultant to develop a basic background paper on state of the art in NRM IA. At the same time, the SPIA Chair has asked the CDC Task Force on Integrated NRM to prepare its collective thoughts on the subject and provide a review of the state of the art in the CGIAR System. Both papers would be reviewed widely and would be the centrepieces of a SPIA facilitated workshop to identify the elements needed in strategic, “best practice” guidelines (as distinct from a “how to” set of operational guidelines) for use in the CGIAR. The consultant, working with SPIA and the CDC Task Force and Centre IA experts, would then develop the draft set of strategic guidelines for doing NRM IA in the CGIAR for review by the Centres and eventual adoption and use within the System.

Activity 2 involves a set of case study assessments of the impacts of selected Centre NRM projects/activities. SPIA will be providing resources and oversight for selected Centres to undertake credible empirical assessments of the impacts of selected NRM activities or

projects in the context of the CGIAR mission and goals. The CGIAR has approved grants of \$30K per Centre for five Centres to produce these assessments.

In mid April, the SPIA Chair asked Centres that were interested to submit brief proposals for case studies to SPIA by 1 June 2003. Centres were encouraged to present NRM research where the results have gone on to extension, adoption and development phases at least 5 – 10 years ago. Specific criteria for selection of the proposals were provided. In response, eleven proposals were submitted, representing 10 Centres. SPIA assessed the submitted proposals and selected five to move ahead with during this first round. While selecting cases, SPIA sought to represent NRM activities at both the NRM and/or policy focused Centres and at the commodity/regionally focused Centres with significant complementary NRM activities. Cases will be undertaken during the period August 2003, to May 2004 and cases will be due with SPIA in advanced draft form by 1 June, 2004. SPIA will have the cases peer reviewed during the period June-August 2004, and the reviews will be returned to the Centres for finalization, with the final drafts being returned to SPIA by end of September 2004. The cases will be published with an accompanying foreword and introduction by SPIA, in time for AGM'04. It is envisioned that SPIA, through the hired consultant working with the Centres (see Activity 1), oversees the cases much in the same way that SPIA, using Drs. Evenson and Gollin, carried out its oversight function of individual Centre crop studies in the case of the recently completed assessment of the impacts of CGIAR CGI research.

Activity 3 is an assessment of the impacts associated with one of the longest running Systemwide programmes, Alternative to Slash and Burn (ASB), that focus primarily on NRM activities, mainly through the ecoregional programmes. Although the iSC did a “mini-evaluation” of the Systemwide programmes with an eco-regional focus, the evaluation was preliminary and did not include assessing of the impacts of such programmes. The present activity will assess the impacts of the ASB programme as well as performing a more thorough evaluation of performance. To ensure effectiveness and efficiency in the use of CGIAR funds, the impact assessment would be carried out jointly with a more traditional iSC type of programme evaluation, and it has been planned together with SCOER (Section 2.4).

Status: Just initiated; on-going until AGM'04.

3.1.9 CGIAR Impact in Africa Study Follow-up [Planning Stage]

Background: While the positive impacts of agricultural research done by the CGIAR and its partners in Asia and Latin America have been well documented (e.g., Evenson study on CGI impacts), the impact of CGIAR work in Africa is less apparent, and poorly documented. At MTM 01, SPIA/TAC presented the available information on the contributions of the CGIAR, working with its partners in Africa and elsewhere, has made to agricultural development in Africa. The paper was well received, but the review was a preliminary one, not complete, and in many cases reliant on anecdotal information for its assessment.

Work planned: This initiative would build on the initial assessment presented at MTM '01 to develop a more systematic and comprehensive assessment of the impacts of the CGIAR and its partners in achieving the goals of reducing poverty, hunger and malnutrition in Africa. A consultant will be hired by SPIA to work closely with the Centres in compiling and synthesizing the available evidence of CGIAR research impacts in Africa.

In addition to completing a more comprehensive desk study, there may be scope for SPIA to become involved in a new initiative to assess impacts of five or six CGIAR Centres in about eight specific locations/projects in Africa. The major focus of this initiative is on community level processes of who adopts, where and why, and improved understanding at the household level of what impacts are being generated by new technologies, over a relatively long period of observation (10-15 years). Major funding for completing the first round of detailed baseline surveys and preliminary and final workshops will come from the Japanese Foundation for Advanced Studies (FASID), but additional support for operational expenses and the second round of surveys is required. On an informal basis, the SPIA Chair and Secretary have been interacting with the project coordinator, Frank Place (ICRAF) and have provided detailed comments on the scope, objectives and methods as defined in earlier drafts of the project proposal. SPIA should keep a watching brief on developments within this well designed but fairly ambitious project and, may at some point, consider greater involvement with some financial support.

Expected outputs: The major output from this activity is an updating and extension of the work presented at MTM '01 seeking to document the improved technology and policy impacts of CGIAR and partner agricultural research in sub-Saharan Africa. The analysis would rely on two sets of information and data: that based on field-level impact evidence from various case studies and more systematic CGIAR Centre and System level assessments. Another key output, derived from the FASID supported study, would be a longitudinal dataset over an extended number of years. This will be extremely valuable in capturing a better understanding of the linkages between agricultural research and poverty alleviation.

Status: No resources have been available to initiate this activity beyond dialogue with and providing advice to FASID project coordinators.

3.1.10 CGIAR Impact Website and Database Development [Planning Stage]

Background: It is important that the CGIAR establish an effective mechanism to promote "best practices" in IA research, disseminate IA research results, and foster dialogue between IA practitioners, both within the CGIAR and throughout the larger research and development communities. The Centres additionally need to improve their ability to learn from experience and to demonstrate to donors, partners, and intended beneficiaries that they are committed to using the results of IA research for organizational learning purposes. Amongst key stakeholders in the CGIAR, and particularly within the Centres, there is widespread interest in and support for developing a CGIAR Impacts website.

Description of work planned: The website interface (structure and functions) will be developed following consultation with stakeholders and potential users, including IA practitioners, scientists and research managers, and professional communicators. IT specialists and website designers will provide guidance on design and technical implementation issues. The website would be managed by SPIA and technically operated by one of the Centres. CIMMYT was proposed initially, since they have considerable experience and capacity.

Major outputs expected: At full development the website would have five functions: (a) serve as a central focal point for IAs in the System, (b) provide general awareness for investors and the public through provision of one page summaries of IAs and synthesis

documents; (c) include full versions of peer reviewed IAs (or links to); (d) be a depository of data that could be used in a variety of IA activities; and (e) provide an interactive mechanisms for those involved in IA inside and outside the system. In addition, the website will provide links to a wide range of resources, including: descriptions of “best practices” in IA research; comprehensive bibliography of IA literature; noteworthy results generated by IA research; database of statistical indicators used by IA practitioners; photographic and video images of agricultural research and their impacts; bulletin board/discussion room facilities; directory of IA practitioners; calendar of upcoming events of interest to the IA community; and, list serve facility.

Status: No resources have been available to initiate this activity beyond the planning phase.

3.2. Future of Impact Assessment Activity in the CGIAR

3.2.1 Context

The CGIAR members and the Cosponsors decided at MTM '99 in Beijing that the Systemwide IA function (previously carried out by the independent IAEG) should be integrated with the work of TAC in order to gain efficiency and take advantage of the synergies with the System's forward planning and its monitoring and evaluation functions, both of which were housed in TAC (See figure below). Thus, close and regular linkages between the three functions are considered essential. In fact, SCOER and SPIA currently have several joint studies underway.

The need for closer integration was confirmed by the 2001 SC working group in its recommendations on the SC. It has now been further confirmed by the Group in its endorsement of the 2002 SC working group proposing the structure and functions of the new Science Council. However, under the new SPIA-SC relationship, (a) the SPIA chair will be appointed by the SC chair and members chosen by the SC chair; and (b) the SPIA chair will not be an ex officio member of the SC. SPIA has confirmed that the three functions of (i) forward planning, (ii) monitoring and evaluation (M&E), and (iii) ex-post IA should be closely associated so that each can build on synergies and complementarities with the others. At the same time, SPIA is sensitive to the wish of the Group that the IA function should retain its independence and transparency and, hence, credibility.

The new arrangements for selecting the SPIA chair and members and reporting directly to the SC raise some concern about the degree of independence that might be possible. There is need to debate further the independence issue. Moving ahead to optimize the contributions of science to achieving the goals of the System requires an iterative process of successive approximations as new results emerge, as new science evolves, and as the evolving issues are understood better. In this process, planning requires learning from the present progress (through M&E) and from the impacts of past activities. At the same time, evaluation of the relative effectiveness of on-going activity, and assessment of the impacts of past application of science requires knowledge of what has happened, what is happening now, and what likely will and should happen in the future, i.e., the context. Thus, close and regular linkages between the three functions are essential. However, with the ex-officio membership of the chairs of other Council subcomponents eliminated, and with the involvement of the SPIA chair in the Science Council essentially abolished, the new SPIA will have very little scope to provide feedback for orienting future research.

The System, in its systemwide IA activities, initially through the IAEG and presently through SPIA as part of the iSC, has focused mostly on major cross-Centre impact assessments. Thus, there have been assessments of the System's germplasm improvement impacts (Evenson *et al.* report), environmental impacts (Nelson and Maredia and Maredia and Pingali reports), and IPM activities (Waibel report). On-going SPIA/iSC assessments are focusing on the CGIAR's impacts on poverty alleviation, the impacts of the System's capacity strengthening activities, the impacts of NRM research, and the overall relationship between the entire System's costs and its impacts on or benefits to society. In addition, there have been various information and support functions carried out over the past years, including several workshops for Centres to consider where the system and its Centres should be going in the field of IA, the specific role of IA in generating fundamental lessons about how research is designed and for whom, and an international conference, bringing together CGIAR investors and IA users with specialists from the Centres and from outside the System to focus on how IA can generally be used more effectively.

3.2.2 *Key Impact Assessment Needs of the System*

Within this broader context of CGIAR forward planning, monitoring and evaluation of on-going programmes, and accountability to investors for past use of their resources, the iSC has on several occasions confirmed its belief that the System still needs:

- (a) evidence of the impacts of its various completed and on-going Systemwide programmes and related activities;
- (b) impact information useful in understanding appropriate and desirable changes in direction of the System's programmes;
- (c) mechanisms for strengthening the capacity to do impact assessment in the System's Centres; and
- (d) to support Centres in the further development of their "impact cultures," or focus in the Centres and their partners on impact pathways and ultimate impacts of their research and related activities. Given these basic system level needs, SPIA concludes that there is a continuing need for four main ex post impact assessment functions at the System level within the CGIAR's impact assessment unit. These include:

(1) ***Conducting high quality, independent cross-Centre impact assessments*** to provide results useful to (a) investors, in justifying their investments; and (b) System management and Centres in planning their programmes and investments and developing and allocating budgets. (Independence here refers to being done by individuals not associated with the research being assessed and having no conflicts of interest that could affect the assessment).

(2) ***Tracking information at a System level*** related to the impacts associated with Centre and cross Centre activities. This could involve routine data collection; and developing, maintaining and managing, in collaboration with the planning and monitoring and evaluation units, an appropriate data base/MIS for the System that would provide annual updates on accomplishments (training, research, etc.) in addition to data on other indicators of relevance in understanding the impacts of the System's outputs and processes.

- (3) *Developing IA methodologies, providing training in their use, and providing advice and facilitation for Centres as needed*, e.g., in terms of setting up programmes and projects in such a way as to make tracking and analyzing impacts more feasible, transparent and of high quality¹. This would include the “certification” of quality of internal IAs and organizing and “certifying” quality of external IAs. Ideally, this function would involve the establishment and maintenance of a CGIAR wide IA web site that also would be open to all outside entities with an interest and involvement in IA related to agricultural research and training.
- (4) *Delivering and facilitating the most effective use of IA outputs*, e.g., facilitating Centre interaction and learning, and developing an effective impact culture in the Centres. It also would involve providing insights to investors on what is and is not feasible in terms of carrying out IAs for such activities as natural resources management, social science research and capacity strengthening. To carry out the four functions described, SPIA concludes, based on a review of past Systemwide IA activity and experience, that five key areas of collaboration and cooperation will need to be targeted more effectively in the future. These relate to:
- (1) working more closely with Centres through collaborative and cooperative activities;
 - (2) working more closely with the System’s science monitoring and evaluation activities to ensure that the complementarities between IA and M&E are fully realized; (in fact, SPIA and SCOER have carried out a number of joint activities);
 - (3) working more closely with the forward looking, system level planning activities, including particularly in monitoring the evolving challenge programme experience;
 - (4) opening up more broadly to the IA world outside the CGIAR, through networking, a web site, outsourcing and putting some future assessments out for bid on a broader “request for proposal” basis; and
 - (5) setting standards and helping develop a more systematic process to assure high quality, independent scientific peer review of the analytical ex-post IA studies produced by SPIA and the Centres.

3.2.3 *Transition: Activities in the Pipeline*

Given this overall context of necessary functions and the targeting of collaborative arrangements needed to make an impact assessment unit more effective and efficient in meeting CGIAR needs, it also has to be recognized that a smooth and active transition to the new Science Council’s impact assessment programme requires consideration of what has gone on in the past. In this regard, the iSC also considered and endorsed, at iSC83, the portfolio of on-going SPIA activities and the approaches to bringing them to completion. The major endorsed endeavours include:

¹ It should be stressed that the implication of this statement is not that the Centres are lacking in high quality impact assessment capacity. Rather, the thinking here is that a central entity can facilitate interaction among Centres, gain access with System level resources to expertise needed by all Centres, and provide a clearing house for information and documentation of use to all Centres. In a sense, this central entity will provide “System level public goods.”

1. The **proceedings of the SPIA/CIMMYT international conference on impact assessment** held in Costa Rica in February of 2002 (*Now completed*).
2. An assessment of the **impacts of the CGIAR on poverty** and the strengthening of capacity in the CGIAR Centres to do work in this area.
3. A stripe review of the **impacts on NARS of CGIAR training** activities (joint with SCOER/iSC).
4. A meta **analysis of the costs and benefits associated with the entire CGIAR portfolio of investments** since its inception.
5. Developing **strategic guidelines for conducting impact assessments** in the CGIAR.
6. A major initiative aimed at assessing the poverty alleviation and sustainability **impacts of NRM research in the CGIAR**.

It is fully the intention of SPIA to continue these activities and to the extent possible bring all of these (except the NRM research impact study) to completion prior to early next year or no later than the middle of 2004.

3.2.4 Potential Future Activities

After iSC83 (August of 2002) and the AGM'02 meeting in Manila, the SPIA/iSC considered an indicative portfolio of planned activities for the future, assessments worth undertaking, but not yet started. At the present time, the intention is to pass this list, and background analyses where available, on to the new Science Council for its consideration. In this regard, the following activities, not necessarily in order of priority, might productively be considered by the new SPIA and the Group over the next few years:

- A follow up study of the **impacts of the CGIAR in Africa**.
- A CGIAR wide **impact assessment website**.
- Analyze how **rising restricted funding** within the CGIAR has affected the System's **impact efficacy**.
- Appraise **internal demands for impact-related information** (i.e. the potential of IA for contributing to learning) through case studies in several selected Centres.
- Initiate a **broad survey of impacts** perceived by CGIAR researchers, partners, and key stakeholders, as a basis for future comparative IA studies.
- Assess the **impacts of the CGIAR in Latin America and in Asia**; these would be parallel studies to one described above for Africa.
- Develop and apply IA methods for **participatory research/breeding** (specific assessments of activities of course should be done through the partners involved in the activities).
- Continue and expand the assessment of the **impacts of the capacity strengthening activities** of the System, extending out from the on-going assessment of training to other types of capacity strengthening activities in the System and to field work involving systematic collection of lessons learnt from those who have been trained and the NARS groups in which they work.

- Participate with IFPRI and others in bringing **poverty impact assessment and “institutional learning and change” (ILAC) strategies and approaches** more into the mainstream of Centres’ activities.
- Initiate assessment of **policy research impacts** across the System, working closely with Centres and consortia dealing with this topic; this includes actively supporting and participating in a **new consortium** dealing with assessment of the impacts of policy-oriented social science research (POSSR). (An international consortium of researchers and other professionals interested in measuring and enhancing the impacts of Policy-Oriented Social Science Research was agreed upon at a workshop, hosted by the Government of the Netherlands and organized by IFPRI. The SPIA attended the meeting. SPIA members should be actively involved in the early development of this consortium and stay actively involved as it develops).
- Look at the impacts of the System’s **biodiversity activities**.
- **Follow up on the Evenson/Gollin work on CGI impacts**, perhaps (a) doing a single crop more in depth; (b) looking at other crops; or (c) assessing impacts in one region/country in more detail, e.g., Latin America or South Asia.

3.2.5 Concluding Comment

SPIA continues to see IA as a central function of the new SC, in agreement with the decisions of the members at AGM’02. The synergies between the overall mandate and the functions needed to guard the quality as well as the relevance of science are strong. Understanding impacts of past activity provides central input for planning how to improve the efficiency, effectiveness, quality and relevance of on going and future science in the CGIAR System. Now that the process of change to a new SC has been decided, there is an urgent need to continue and expand an active set of major systemwide assessment activities that can provide the CGIAR and its stakeholders with new perspectives on the major impacts derived from investments in the System. As indicated in the section above, a number of such activities already have been thought through and initiated by SPIA.

4. OTHER CORPORATE TASKS

4.1 Medium Term Plans/Financing Plans

The CGIAR follows a rolling 3-year forward planning horizon, referred to as a Medium-Term Plan, whereby the annual research agenda is reviewed each year not only in the context of current developments and strategies but also future requirements and opportunities. The research agenda for the Plan Year is approved by the Group in October as well as indicative plans for the third year of the MTP.

At AGM’01, the Group endorsed a revised financial decision-making process that started with the 2003 financial cycle, with two main features. The first feature is a single submission of both the Financing Plan (FP) as well as the Medium-Term Plan (MTP) in September of the year preceding the Plan Year. In the case of the 2004-2006 cycle, a single document is being submitted in September 2003, containing an FP for 2004 and an MTP for 2004-2006. The second feature consists of a review by ExCo of the research agenda for a

particular year in the context of the 3-year MTP between the preceding and the successive year, e.g. the 2004 research agenda in the context of the 2003-2005 MTP.

The CGIAR's ExCo reviews the rolling MTPs and annual agenda, and, if appropriate, recommends them for CGIAR financing. In 2002, iSC had reviewed all Centres MTPs/FPs, and made recommendations to ExCo.

The iSC has recommended that MTPs be prepared for CPs approved for implementation. Centres developing and implementing CPs are to include the associated MTPs as part of their proposed FP and MTP as well as their project portfolio. As the Centres begin implementing CPs, accounting for a growing portion of the portfolio, there will inevitably be shifts/re-alignments in both programme and budget as a result of changes in donor support and Centres responsibilities. It is incumbent on the iSC and the future SC to carefully track these changes. Many members will be anxious for knowledge of such programme and budget trends.

It is considered important that MTPs be submitted for each CP, as stand-alone documents, so as to become part of the normal tracking system, utilizing the log frame organizational format. Each MTP will have to be analyzed in terms of outputs, milestones, and outcomes, giving research the needed focus and providing the means to track output accountability: the effort is well worth the marginal extra cost. There could be flexibility in presentation depending on the organization of the CP.

The separate budget identity for each CP should reflect two kinds of monies: **Programme** money, as donor contributions, that comes directly to the Programme as central budget and not reflected as a part of the lead Centres budget; and **Project** money that would be indicated as regular budget in the Centres that had originally received it. As the CP process moves forward, some streamlining of the financial reporting system may be called for.

Systemwide Programmes (SWPs) have a clear role to play, and have to be rendered more visible to prevent their being overshadowed by CPs. The means to providing such visibility is the MTP planning process. Furthermore, the MTPs give SWPs form, structure and substance. Tracking and recognition by iSC/SC of SWPs that cut across Centre programmes would be facilitated if they can be incorporated within the MTP process in a streamlined fashion.

Status: Centres MTPs are expected at the CGIAR and iSC Secretariats at the beginning of September 2003. Due to the transitional arrangements, the three members carrying over from the iSC after September 15th, with the assistance of the iSC Secretariat, will prepare a consultant commentary on the 2004-2006 MTPs and Financing Plans for the Group's consideration at AGM'03. This is the first time that MTPs are expected from CPs and SWPs, and it would be desirable for SC to take up the matter as soon as possible.

4.2 Challenge Programmes

One of the four pillars of CGIAR reform was the adoption of Challenge Programmes (CP). They were a means for the System to take on global challenges through partnership with a wide range of stakeholders. They were to build on the core competencies of the

Centres, complementing their on-going research programmes. At AGM'01, the Group assigned iSC the responsibility of evaluating the CPs in the Pilot as well as regular processes.

4.2.1 The Pilot Process

As per ExCo request at ExCo 1, November 2001, the iSC assessed 10 CP pre-proposals for the accelerated pilot process. It applied an evaluation process consisting of 11 CGIAR-approved criteria on a weighted basis as well as a peer review system involving some 25 external experts. Each iSC member evaluated all 10 pre-proposals in two rounds of e. mail discussions. The iSC then used a modified Delphi approach to arrive at a ranked list of CPs.

Of the ten, three candidates met the criteria set for a CP pre-proposal, and were recommended for the Group's consideration for full proposal development. The *Unlocking Genetic Diversity in Crops for the Resource Poor* pre-proposal was clearly number one, followed by that on *Water and Food* in second place and *Bio-fortified Crops for Improved Human Nutrition* in third position.

The rest of the pre-proposals, except for that on HIV/AIDS, were all considered as very relevant to CGIAR goals, and therefore merited further consideration under the Regular CP process. The pre-proposal on HIV/AIDS, although responding to a crisis in Sub-Saharan Africa, was deemed not to fall under the comparative advantage of the CGIAR Centres. However, a future Sub-Saharan Africa submission could very well include a regionally focused HIV/AIDS component.

In July 2002, prior to its August iSC/TAC 83 meeting, the iSC embarked on the evaluation of the three full proposals mentioned above. The evaluation of the three full proposals was based on: the criteria for Phase III of the CP process, as approved by the Group; and peer review by 21 selected scientists. The assessment also benefited from interactions between iSC members, a few donors' representatives and observers and the lead proponents during iSC/TAC 83. Based on the comments of the peer reviewers and ISC, the proponents were asked to revise their original submissions. The iSC endorsed all three full proposals for the Group's consideration, pointing to their major implications on the balance of activities across the CGIAR Log frame outputs.

All of the three full proposals, namely *Water for Food*, *Bio-fortified Crops* and *Genetic Resources* were subsequently approved by the Group, and are now under implementation; however, the *Genetic Resources* CP has been restricted to one year.

4.2.2 The Regular Process

Under the Regular process, iSC assessed 41 CP Concept Notes as requested by ExCo, of which 35 were fresh submissions in response to the open call made on 15 November 2001 and 6 carried over from the Pilot process. iSC's evaluation was guided by three broad criteria approved by the CGIAR at AGM 2001. Each iSC member evaluated all 41 Concept Notes in two rounds of e. mail discussions. The iSC reached its decision, using a modified Delphi approach.

Of the 41 Concept Notes, the iSC judged 13 to have met the set criteria, and recommended them to the Group for pre-proposal development. Out of the 13 reaching pre-proposal stage, only one qualified for full proposal development, namely *Securing the Future*

for *Africa's Children* or the Sub-Saharan Africa CP proposed by FARA. A review of the full proposal by iSC is currently underway, and will be the subject of focused discussion with the proponents at iSC/TAC-85 in Berkeley. It is expected that iSC would recommend moving ahead with a reduced scale, and subject to a stepwise approval.

4.2.3 Lessons Learned from the CP Process

The iSC's views on completing the CP Pilot process and moving forward with the Regular process are reflected in the draft discussion paper entitled *Identification of Challenge Programmes that Enhance and Broaden Support for the CGIAR Research Agenda* submitted to Ian Johnson in October 2002. The new SC may wish to follow-up on drawing lessons from the first stages of the Pilot and Regular CP process with the assistance from the members carrying over from the iSC and from the SC Secretariat.

4.3 Logical Framework for the CGIAR System

In 1996, it came to light that the CGIAR's description of its work was inconsistent with frameworks used by others, including those who financed the System. For instance, work was described in terms of inputs rather than outputs. Interest mounted toward re-assessing the then existing mode of System-level objectives formulation and activity reporting. In the fall of 1996, TAC, with support from the Government of Germany, initiated a series of workshops to undertake such a task and develop a Logical Framework to plan research and assess impact. The Committee enlisted the participation of a broad spectrum of experts both from within and outside the CGIAR System such as DSE, members of the CGIAR and of its Finance and Oversight Committees, IAEG, Centre Directors, Board Chairs and NARS. As part of this consultative process, feedback from Centres was sought and incorporated at each step, helping garner widespread acceptance. Workshops were held in Feldafing, Germany in February 1997 and 1998. The *Logical Framework for the CGIAR System* was formally approved by the Group at ICW in October 1998, Washington DC.

4.3.1 What is the Objective of the Logical Framework for the CGIAR?

The objectives for adopting the Logical Framework for the CGIAR System were to: 1) increase transparency for members by establishing clear logical relationships between inputs, expected outputs and desired impact; 2) enable scientists at Centres as well as collaborators in partner organizations to better plan, prioritize, implement and evaluate research efforts; 3) aggregate projects both at Centre and System levels; and 4) streamline research management instruments.

A key characteristic was a clear logical relationship between specific Centre-level priorities in the context of generic System-level priorities as well as between Centre-level outputs and System goals. In the case of basic research, outputs serve as inputs to other projects. Realizing the potential of the Log Frame demanded congruence in the planning processes between the System and Centre levels: any Centre research project had to be logically bound to both the Centre Log Frame as well as the strategic Log Frame for the System as a whole.

From the perspective of research management, a Log Frame Matrix consists of: activities and outputs plus corresponding indicators and milestones (a part under direct managerial control); the intended impact of the research project in terms of purpose,

intermediate goal, goal plus the respective indicators; conditions (assumptions) that influence project outcome but are beyond the control of project management.

By 2000, all Centres had adopted the Log Frame. With the acceptance of this Approach by the System came the introduction of an Output-oriented research planning, research management and performance tracking system, putting clients (the poor) at the forefront. As a result, the former CGIAR Undertakings/Activities became five main System outputs, as indicated in Table 1. The expected benefits were greater internal and external transparency as well as accountability to members, partners and other stakeholders; better management within the System and Centres; and stronger participation of NARS.

Outputs: The preparation and release of the following document: *Proposed Logical Framework for the CGIAR System*. TAC Secretariat, FAO, Rome, September 1998.

**Table 2 - Previous CGIAR Undertakings/Activities
and Current CGIAR Outputs**

OUTPUT/NEW	UNDERTAKINGS/OLD
1. Germplasm Improvement	Germplasm Enhancement and Breeding
2. Germplasm Conservation	Saving Biodiversity
3. Sustainable Production	Production Systems, Development and Management Protecting the Environment and Networks
4. Policy	Improving Policies
5. Enhancing Institutions	Training, Information/Communications and Organisation/Counselling

Future actions: As part of its work on the next priority setting exercise, TAC was to review hypotheses underpinning the System Logical Framework and those of Centres in the context of CGIAR goals. The Vision and Strategy prepared by TAC and approved by the Group in 2000 addressed a number of these concerns. However, now that the CGIAR priorities and strategy is being reformulated, the SC would be advised to revisit the extent these hypotheses underpinning the CGIAR Log Frame and those of Centres are connected to the CGIAR goals.

TAC had affirmed that the framework prepared left scope for further improvement, and led to a recognition of the need for a Log Frame Manual whose **objectives** were to: present results of preliminary discussions following ICW 98 concerning identifying a match between the accepted System-level Log Frame and Log Frames at Project- and Centre-levels; encourage use of Log Frame as a tool for team-building and organizational development; and familiarize all actors within the CGIAR System with the rationale for Log Frame and institutionalize a basic procedure so as to facilitate its wider use within the CGIAR System;

Output: A document entitled *Manual on Log Frames within the CGIAR System*. Draft October 1999, 36 pp. was prepared for TAC by Blazer, G., Jens Nagel, U. but has never been discussed.

Future actions: Further work on the CGIAR Log Frame Manual, particularly harmonising it with the System Logical Framework and pre-testing it with the Centres is necessary, with respect to the development of indicators. The discussion on Performance Measurements would also benefit from indicators derived from the CGIAR Logical Framework.

UPDATE NO. 40 for SC, September 2003

CALENDAR FOR REVIEWING THE CGIAR SYSTEM-WIDE PROGRAMMES

[illegible]

UPDATE NO. 40 for SC, September 2003

SYNOPSIS OF FORTHCOMING EXTERNAL PROGRAMME AND MANAGEMENT REVIEWS OF CENTRES

	IRRI	IFPRI	CIMMYT	CIFOR	ICRAF
Number	Sixth	Fourth	Fifth	Second	Third
Board meeting	September 10-12, 2003; April 5-7, 2004	Executive Committee December, 2003	To be determined		
Initial Phase	Late 2003				
Main Phase	First half of 2004				
Panel Chair	Richard Flavell				
Panel Members matched to profile	John Griffith, governance and management; Pending: crop improvement; crop and resource management; socioeconomics, policy and institutional issues; and				

	IRRI	IFPRI	CIMMYT	CIFOR	ICRAF
Consultants					
Field Visits					
SC Sec. Res. Person	Sirkka Immonen	Tim Kelley	Sirkka Immonen		
SC Member on Review					
To Science Council	Autumn 2004				
To Group	AGM'04	AGM'04	AGM'05		

UPDATE NO 40 for SC, September 2003

CALENDAR OF EXTERNAL PROGRAMME AND MANAGEMENT REVIEWS

Centre	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CIAT			EPMR 5							EPMR 6
CIFOR	EPMR 1							EPMR 2		
CIMMYT							EPMR 5			
CIP					EPMR 5					
ICARDA		EPMR 4							EPMR 5	
ICLARM		EPMR 2						EPMR 3		
ICRAF	EPMR 2							EPMR 3		
ICRISAT						EPR 5				
IFPRI	EPMR 3						EPMR 4			
IWMI			EPMR 2						EPMR 3	
IITA				EPMR 5						EPMR 6
ILRI		EPMR 1							EPMR 2	
IPGRI						EPMR 5				

IRRI	EPMR 5						EPMR 6			
ISNAR					EPMR 4					
WARDA			EPMR 4							EPMR 5