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Document No:	MTM/00/08
Distribution:	General
Date:	April 26, 2000

**Mid-Term Meeting 2000  
May 21 - 26  
Dresden, Germany**

<b>Charting the CGIAR's Future – A New Vision for 2010</b>
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**Strategy for the  
Consultative Group on International Agricultural Research  
(CGIAR) in sub-Saharan Africa**

Attached is a paper on a Strategy for the CGIAR in sub-Saharan Africa prepared by the Committee of Center Directors. The paper should be considered as background to the discussions on a new vision and strategy for the CGIAR.

## Strategy for the Consultative Group on International Agricultural Research (CGIAR) in sub-Saharan Africa

### Executive Summary

Economic growth in sub-Saharan Africa (henceforth SSA) over the last decade has been limited by slow agricultural growth, a rapidly increasing population and degrading natural resources. Recognizing that agriculture, including crops, livestock, fisheries and forestry, will continue to be the engine for economic growth, African leaders have called for African agricultural production to grow at 6% annually through 2020 while improving the natural resource base to support future generations.

Agricultural research is important for identifying and proposing ways of eliminating constraints to agricultural development and for providing the steady flow of technologies adapted to local conditions that will be necessary to transform and raise the productivity of African agriculture and to improve food security for the poor. For this reason, the Special Programme for African Agricultural Research (SPAAR) and the Forum for Agricultural Research in Africa (FARA) have developed a '*Vision for African Agricultural Research*', which has as its long term goals:

- Food security and poverty alleviation;
- Competitiveness of African agriculture; and
- Enhancement and sustainability of the natural resource base.

Over the past twenty-five years the CGIAR has contributed through agricultural research to the needs of the region. These contributions have led to significant improvements in some areas. However, if the CGIAR is to contribute significantly to the African goal of 6% annual growth in agricultural production, there is need for new focus, new partnerships and a new shared vision and strategy.

The CGIAR Centres are uniquely placed to bring global resources to African agricultural research in the key areas of frontier technologies, natural resource management, policy research, capacity building and networking. Such resources will help develop and disseminate environmentally sound technologies based on effective blends of traditional and modern scientific methods.

The CGIAR Centres share the SPAAR/FARA vision for African agricultural research. This strategic framework for the CGIAR contributions in SSA is based on the jointly developed vision statement:

*The CGIAR Centres, in partnership, see their role in sub-Saharan Africa by the year 2020 as having contributed to the goals of the African agricultural research community of attaining food security and poverty eradication through research, policy support and*

*capacity building based on the environmentally sound management of natural resources.*

The strategy is centered on four principal elements:

1. Germplasm and natural resource management technologies that offer clients a wide range of options for enhancing productivity in an environmentally sustainable manner.
2. Technology dissemination and farmer empowerment to catalyze the adoption of innovations that will increase food security and incomes of the poor.
3. Policy research to provide options that foster enabling environments for the adoption of these innovations and strengthens NARS in this area.
4. Capacity building to help develop further a cadre of qualified, experienced, and motivated African research and development specialists, managers and policy makers who will lead the region in attaining the goals of the shared vision for Africa.

Most importantly, this strategy will be implemented through innovative and effective partnership mechanisms based on joint planning, execution and evaluation of future activities, effective communication, and mutual trust and respect among all partners.

## Strategy for the Consultative Group on International Agricultural Research (CGIAR) in sub-Saharan Africa

### 1 Introduction

Africa faces major challenges in increasing agricultural productivity to achieve food security, higher rural incomes and sustainable economic growth while maintaining and improving the natural resource base. Over recent decades, the annual 2-3% growth in agricultural production in Africa has been exceeded by the increase in human population, and this disparity has brought hunger, poverty and environmental degradation. Recognising these external factors, SPAAR/FARA determined that even greater efforts were required to achieve a six per cent annual growth in agricultural production by 2020 to enable significant improvement in the welfare of African people. This ambitious goal cannot be achieved without effective and focused agricultural research.

Asserting the need for more effective agricultural research, the 3<sup>rd</sup> CGIAR System Review Panel recommended *'a special collaborative focus on (sub-Saharan) Africa to create an effective strategy for African agriculture that complements the efforts of other organisations'*.

Currently the CGIAR accounts for approximately 15% of the total annual expenditure in agricultural research in the region. The challenge is to ensure that this relatively small investment has the greatest catalytic effect. The CGIAR's strategy for research in Africa, developed with African partners, is therefore aimed at reinforcing the greater investment in agricultural research by the national agricultural research systems in order to increase impact on agricultural growth.

The strategy reflects the view that increased agricultural productivity in SSA requires the best that science can offer and that the CGIAR Centres have a key role to play in bringing the best of science to agricultural research in Africa. The CGIAR Centres will also play a catalytic role in encouraging advanced research institutions to collaborate in technology development, capacity building, technology transfer, and policy research. The NARS will lead research efforts addressing constraints to national agricultural development, including traditional breeding and agronomy, with the centres increasingly involved in a facilitative and backstopping role for research primarily relevant to national agricultural development.

### 2 Developing the Strategy for the CGIAR in sub-Saharan Africa

In response to the SPAAR/FARA Vision for African Agricultural Research and the 3<sup>rd</sup> CGIAR System Review, the CGIAR Centre Directors Committee convened

three meetings with African partners—*Meeting of Minds I* in Nairobi, 10-11 May 1999; *Stakeholder Meeting* in Beijing, 22 May 1999; and *Meeting of Minds II* in Abidjan, 1-3 September 1999. These meetings brought together senior representatives from African national and regional research organisations and their colleagues in the CGIAR Centres to jointly develop this strategy.

This series of meetings was characterised by a **new** atmosphere of partnership and optimism that the required impact on African Agriculture will be realised through NARS-CGIAR collaboration, which will be facilitated by the sub-regional agricultural research organisations.

### 3 A Shared Vision

The CGIAR's African partners voiced support for the CGIAR mission as being fully congruent with and supportive of the Vision for African Agricultural Research, with the following long-term goals:

- Food security and poverty alleviation;
- Competitiveness of African agriculture; and
- Enhancement and sustainability of the natural resource base.

The CGIAR centres with African partners developed the following joint vision statement:

***The CGIAR Centres, in partnership, see their role in sub-Saharan Africa by the year 2020 as having contributed to the goals of the African agricultural research community of attaining food security and poverty eradication through research, policy support and capacity building based on the environmentally sound management of natural resources.***

The agreed elements of this vision are described in Annex 2.

### 4 Key Result Areas

Agricultural development in sub-Saharan Africa faces tremendous challenges in achieving the goal of 6% annual growth in agricultural production by 2020. Appropriate technologies, conducive policies, viable markets, institutional capacities of the main actors are required as well as effective resource management by farmers who are empowered to articulate themselves and have the capacity to manage their land. Research can significantly contribute to these challenges through informing the other actors with sound analysis and development of technologies and through piloting new approaches and strategies, which other stakeholders can use effectively.

A focused set of key result areas was identified to enable the Centres to fulfil the shared vision. These will bring the best and most appropriate science to bear through the development, adaptation and dissemination of new technologies and by improving the policy environments in which farmers operate. These key

result areas include building the capacity of African agricultural researchers to lead the development of efficient, demand-driven, participatory and pluralistic national agricultural research systems (NARS).

The core of the research required to enhance agricultural development is carried out through the NARS; therefore, the Centres' contributions must be complementary and based on their comparative advantage. Moreover, there is need for jointly and systematically identifying interventions, which will maximise the impact of the CGIAR's contribution to the total effort of agricultural research. The CGIAR centres are well aware that any substantial impact depends on a variety of other actors in agricultural development.

The following elements were identified with African partners as the foundations of the strategy for the CGIAR in Africa, among which technology development will require the majority of the effort:

- Technologies for sustainable development.
- Technology dissemination and farmer empowerment.
- Policy research.
- Capacity building.

#### 4.1 *Technology for Sustainable Development*

The African Vision envisages that *'the best of science should be harnessed for the development of advanced but appropriate agricultural technologies that are adapted to local conditions and take into account socio-cultural characteristics and value systems'*. This vision implies that researchers must be aware of the rapid changes in science in the world scene that often make new technological advances almost obsolete before they are applied in Africa. It notes that this is particularly true in the field of biotechnology where science is increasingly constrained by issues such as intellectual property rights and patents and is posing new questions to ethics, biosafety and the environment. It points out that Africa has yet to capitalise on its rich indigenous knowledge or to develop mechanisms that will enable its institutions to acquire and absorb relevant new technologies. It argues that this is basic to the region's harnessing of the best of science and technology in overcoming constraints to agricultural productivity in advancing overall national development.

In concert with the African Vision, the strategy pays greater attention to the synergy between genetic improvement and natural resource management that incorporate social, economic, gender and environmental dimensions at different times and geographical scales (field, community, national, sub-regional, regional, global). This synergy will be addressed in on-going priority setting and research planning in the areas of soil and water management, integrated systems management, biotechnology and biosafety issues, genetic resources conservation and biodiversity of crop, livestock, tree and fish resources.

The African Vision calls for increased gender-sensitivity in the generation of technologies that address the needs of the target group. Other areas include

the efficiency of energy utilisation and labour productivity; expanding and enhancing yield potential especially in marginal and degraded areas; judicious use of high potential agro-ecologies; and the exploitation of Africa's orphan crops as viable alternative sources of food. Research will follow a balanced approach to technology development that addresses the complete value chain, from production, processing, marketing, to value-adding concerns that are linked to nutritional aspects, health, income and overall food security. The African Vision encourages a pragmatic approach to planning, program development, monitoring and evaluation involving key stakeholders (producers, processors, policy-makers, market agents and consumers) in partnership with those in public and private domains and the international community.

The strategy for the CGIAR incorporates participatory, integrated approaches to increasing sustainable market-oriented production in crop, livestock, fisheries, forestry and agroforestry systems.

More specifically the CGIAR centres will focus in the following areas:

- The application of the best of science, particularly in the rapidly advancing field of biotechnology;
- Integrated gene management, including the use of functional genomics and molecular plant breeding as well as Mendelian methods of breeding, coupled to sustainable and equitable use of biodiversity;
- Integrated natural resource management, incorporating efficient water and soil nutrient management and conservation of animal and plant genetic resources;
- Integrated pest management;
- The exploitation of advanced information and communication technologies such as bioinformatics, geographic information systems, remote sensing and spatial analysis; and
- Value adding post-harvest technologies and processing.

#### *4.2 Technology Dissemination and Farmer Empowerment*

The impact of research depends on farmers' access to new technologies and on their capacity to selectively adapt and adopt them according to their needs and circumstances. Establishing favourable circumstances for technology adoption requires partnerships among many actors in the lab-to-land continuum identified by the 3rd CGIAR System Review Panel. Responsibility for disseminating agricultural technologies within individual countries lies with national extension institutions, farmer organisations, non-governmental organisations and development organisations working in pilot projects or large-scale development programmes. The CGIAR Centres will collaborate with these partners in determining means of improving the uptake of new technologies and obtain the feedback to re-orient the centres' research programs when needed. This is particularly critical in the delivery of natural resource management innovations, which is a research subject in itself. Such efforts will ensure that CGIAR research is demand driven and responsive to clients' needs through the empowerment of

farmers' organisations and their active participation across the full research-development continuum.

The CGIAR centres will help strengthen NARS capacity for technology dissemination and promoting farmer empowerment through:

- Experimenting with and documenting innovative approaches to dissemination of knowledge-based technologies including those emerging from innovative natural resource management research;
- Facilitating intra- and inter-regional exchanges of technology and experience in technology dissemination;
- Developing new methods of exchanging biotechnologies, complying with biosafety regulations and negotiating issues of intellectual property rights;
- Supporting NARS in assessing adoption and farmer-level impact of research products;
- Developing more effective techniques and methods for participatory research, gender analysis, and scaling-up of research products for wider impact; and
- Being a credible partner in the African research-development continuum.

#### 4.3 *Policy research*

The search for food security and poverty elimination at the farm level in Africa is widely constrained by inappropriate policies that affect smallholders' access to input and output markets and to land, capital and new technologies. The CGIAR has a comparative advantage in facilitating cross-country comparisons by being able to bring together NARS scientists from different countries to develop policy options jointly upon request or for consideration by policy makers. Such policy research must be closely co-ordinated with technology development and research on natural resource management, as they are two sides of the same coin. The potential impact of climate and demographic changes on the temporal and spatial distribution of food demand and production should be evaluated. The strategy recognises the need for the CGIAR in partnership with national and regional collaborators to improve the awareness among policy and decision makers about the needs for policy research so as to mobilise more national and regional support for policy research.

The CGIAR and national partners will strengthen collaboration for policy research at the national and local levels, including building national capacity for policy research through:

- Conducting joint policy research analysis on areas such as barriers to technology adoption, access to input and product markets and common property at the community level, the impact of sector-specific and macro-level policies on natural resources;
- Developing primary databases and methodologies that will facilitate cross-country policy analysis;

- Conducting joint NARS-CGIAR high level dialogues with key African policy makers, particularly those from outside the agricultural sector, to gain greater political commitment to agricultural research; and
- Assisting NARS to gain credibility and influence with policy makers in their own countries.

#### 4.4 Capacity Building

In recommending a special collaborative focus on Africa, the 3<sup>rd</sup> CGIAR System Review Panel proposed *an African Capacity Building Initiative for Sustainable Food Security as a major inter-Centre initiative. It should help train a cadre of African leaders who can assist the political leadership in their countries to remove policy constraints and develop a well-conceived strategy for food security*. In turn, an important goal stated in the African Vision for Agricultural Research is *'to achieve a cadre of qualified, experienced and motivated agricultural research and development specialists, managers, and policy makers to lead the region towards achieving its long-term goals'*.

Over the past 30 years, there have been significant investments in human and structural capacity for agricultural research in Africa, However, capacity still falls far short of meeting Africa's needs. Improvements are required not only in the amount and quality of technical capacity but also in research planning, management and governance. There is need for revitalising degree training programmes in order to capitalise on the rich academic resources in African universities.

A consultative process to assure that training responds to African needs has already been established through the CGIAR-NARS Training Group, and the CGIAR will expand contributions to capacity strengthening in future, including;

- Enhancing NARS capacities in natural resource management research, policy research, biotechnology, information technology, technology dissemination and farm-level impact assessment;
- Assisting NARS to develop systems for increased public awareness and resource mobilisation;
- Organising training for more efficient use of human resources, available physical facilities and priority setting;
- Developing NARS skills in managing organisational change and managing partnerships; and
- Devolving of training in well-developed subject areas to African universities, allowing the CGIAR to focus on the subjects listed above.

## 5 Operationalising the Strategy

The CGIAR recognises that an array of partners is necessary to achieve impact from agricultural research; this includes researchers, policy makers, public and NGO extension workers, the private sector, farmer organisations and most of all

the individual farmers. The strategy will position the Centres to more effectively address three strategic elements:

- An effective research-to-development continuum;
- Better collaboration with African partners; and
- Improved co-ordination among the CGIAR Centres working in Africa.

### *5.1 The Research-to-Development Continuum*

The strategy recognises that research must generate the products that meet farmers' needs and that farmers must have access to these products. Participatory research involving farmers and extension staff in sustainable, cost-effective national approaches will help ensure farmer empowerment and technology delivery. Iterative cycles of research and development that link science to development will replace linear models of research-to-technology-transfer. While clarification is still needed on the extent of the Centres' roles in these iterative cycles, the main elements will include:

- Primary focus upon developing approaches and methods through collaboration with national, non-governmental and user organisations in case studies across the research-development continuum;
- Wider promotion of the best practices through networks; and
- CGIAR/NARS joint efforts to improve involvement by the private sector.

### *5.2 Improved Collaboration with African Partners*

The principal aim of the strategy is to promote both new and more effective collaboration between the CGIAR Centres and their African partner institutions. These new partnerships will share commitments to excellence in science and capacity building for the long-term viability and sustainability of the national research systems.

With the support of the CGIAR Organisational Change Programme, the following principles have been established by which collaboration among and between the NARS and the CGIAR Centres will be achieved:

- A compelling shared vision has been agreed.
- Dynamic leadership from all partners
- Joint definition of the problems to be addressed.
- Power equity, complementarity and interdependency.
- Mutual accountability.
- Careful attention to process.
- Communication linkages.
- Explicit decision-making processes.
- Shared recognition and attribution
- Mutual trust, respect and commitment.

NARS-CGIAR partnerships will be facilitated by the three African sub-regional associations – the Association for Strengthening Agricultural Research in East and

Central Africa (ASARECA), the West and Central African Council for Research and Development/Conseil Ouest et Centre Africain pour la Recherche et le Developpement Agricole (WECARD/CORAF) and the Southern African Centre for Cooperation in Agricultural Research and Training (SACCAR). Each has its own distinct constitution. Each is a member of FARA whose coordinating role is evolving with guidance from SPAAR. These organisations, and the relatively long history of informal intra-regional collaboration in agricultural research in Africa, offer a potentially strong mechanism for ensuring partnership. However, the strategy for the CGIAR in Africa acknowledges and accommodates the need for future adjustments and realignments with the evolving sub-regional organisation and FARA strategies. Further influences are also anticipated from FARA's participation in the Global Forum for Agricultural Research (GFAR).

Mechanisms for improved collaboration include:

- Existing collaborative networks for technology development, information transfer and cross-border policy analyses;
- Collaboration with relevant stakeholders through theme or agroecology based working groups or consortia;
- Better integration and sharing of responsibilities through joint planning, project formulation, training and meetings;
- Joint activities initiated, led and co-ordinated by either the African partners or the Centres on the basis of comparative advantage for leveraging resources, formulating projects and programmes, and collaboration in competitive grant mechanisms at both national and regional levels;
- Research contracted from Centres to NARS, and vice versa, with joint monitoring and evaluation, shared credit and joint publication of outputs;
- Facilities and expertise shared by Centres and NARS through exchanges of staff on consultancies, outsourcing, secondment of national staff to Centres and through visiting scientist schemes; and
- Transferring responsibilities for project and network management and administration to national partners whenever appropriate.

### 5.3 *Implementing the Strategy*

The CGIAR centres with African partners will implement the Strategy through centre specific initiatives and increasingly through multi centre-NARS consortia.

The long-term Board approved strategies for each centre are operationalised in the three-year medium-term plans. These plans are updated annually. Specific details on centre initiatives in SSA will be elaborated in the plans for 2001-2003 submitted to TAC and the CGIAR in 2000.

In addition, consortia of CGIAR centres and NARS partners will address the four principal elements of the strategy.

- Germplasm and natural resource management technology development and dissemination. The ecoregional and systemwide programmes based in sub-Saharan Africa will be strengthened building on the substantial

investments already made by NARS and the CGIAR centres. These include the Alternatives to Slash and Burn Programme, the Systemwide Livestock Programme, Desert Margins Programme, Ecoregional Programme for Humid and sub-humid Tropics of sub-Saharan Africa, Inland Valley Consortium, and African Highland Initiative. These initiatives already have an established partnership basis. In line with the strategy for improving future collaboration, operational and governance roles and responsibilities will be re-assessed in terms of the capacity and comparative advantages of the partners.

- Policy research. For the CGIAR, IFPRI will co-ordinate and lead development of policy research and capacity strengthening initiative, including developing new linkages outside the agricultural research community.
- Capacity building. ISNAR will co-ordinate development of a capacity strengthening program for SSA, linking and co-ordinating the training activities of all CGIAR centres

As previously noted, the CGIAR Organisational Change Programme will assist in harnessing and improving the processes of change already initiated in developing the strategy and in making the new partnerships more effective and sustainable.

#### *5.4 Co-ordination and oversight of CGIAR activities in sub-Saharan Africa*

Co-ordination among the CGIAR centres will be implemented at all levels - centres, programmes and individual scientists - to improve and efficiency and effectiveness of the work by the NARS-CGIAR partners. Particular attention will be given to co-ordination within the sub-regions. Mechanisms for improving co-ordination include.

- Assigning authority and responsibility to the Centre Directors' Committee for sub-Saharan Africa for oversight of CGIAR sponsored activities in sub-Saharan Africa. The CSSA will meet with the executive directors of the SROs, FARA and SPAAR to review the CGIAR activities and identify opportunities for improvements.
- Strengthening of existing mechanisms of ecoregional programs, systemwide initiatives and joint projects, including cross-membership on oversight committees, alignment of personnel policies and operating procedures across Centres, joint appointments, common services and shared information/databases;
- Co-ordination and monitoring by national and regional partners, e.g. through crosscutting national workshops and SRO-convened scientific meetings; and
- Common host country agreements to harmonise and simplify administrative demands on national partners and CGIAR Centres.

## **6 Stakeholder Commitments**

This strategy for the CGIAR in sub-Saharan Africa reflects the CGIAR Centres' commitment to the African goal of achieving 6% annual growth in agricultural productivity by 2020. The CGIAR's contribution will focus on adding value to the much larger investment in agricultural research through the NARS and thereby make the most efficient use of the total investment in agricultural research in Africa.

Successful implementation of this strategy is predicated on sufficient resources for all partners to enable the recruitment, retention and functioning of the high calibre, dedicated scientists essential to the required innovative technical and policy research. The CGIAR will work with the SROs and NARS in developing best practices for resource mobilisation and in joint fund raising.

The success of the strategy will depend on joint commitments by African governments and the international development community to providing both the funding and enabling policy conditions necessary for agricultural research to contribute effectively to the goal of six percent annual growth in agricultural productivity. Success will also depend on governments supporting smallholders with enabling policies, efficient and reliable access to input and output markets and effective channels for accessing innovations.

In committing themselves to this strategy, the CGIAR centres and African partners pledge to work together to assure that these goals for agricultural research are achieved and sustained in the decades ahead. The Centre Directors' Committee for sub-Saharan Africa with African partners will monitor the progress of the strategy, assess impacts and recommend changes to make it more effective. The CGIAR centres look forward to the future with renewed confidence based on this shared vision and in anticipation of increased political and material support for the NARS from African governments and international development agencies.

Annex 1 Challenges, contribution of research and niches and roles of CGIAR identified at Meeting of Minds I

Challenges	Contribution of Research	Niches and Roles of CGIAR
<p><b>Technology for sustainable agricultural development</b> – making more technology options accessible to farmers to increase productivity of crops, livestock, tree and fish, to increase productivity of natural resource base, to restore soil fertility and to add value to farmer's products</p>	<p><i>Develop technologies for increased productivity, more efficient use of inputs and that maintain and enhance the natural resource base</i></p> <p><i>Assist in the development of formal and informal seed sectors</i></p> <p><i>Conduct research in value-added aspects of farm production an rural agribusiness</i></p> <p><i>Use a fully participatory approach to technology development and make the research agenda more market driven</i></p>	<p>Conduct research in cross cutting issues (regional and thematic); contribute to basic and strategic research; provide technical backstopping to African partners and the development on integrated natural resource management approaches; facilitate linkages to wider scientific community; provide initial germplasm; provide access to private sources of biotechnology; conduct biotechnology research and train NARs in these methods; encourage interdisciplinary and participatory approaches to research and technology transfer.</p>
<p><b>Natural Resource Management</b> – farmers using sustainable natural resource management practices</p>	<p>Integrated natural resource management</p> <p>Integrated gene management</p> <p>Soil and water management</p>	<p>Develop methods and knowledge base; technical backstopping of natural resource programs in the NARS; capacity building</p>
<p><b>Policy</b> that is conducive and enabling to encourage technology adoption and assure research impact at all levels.</p>	<p>Ex-ante analysis of policy implications</p> <p>Inform policy makers of possible consequences of policy options</p>	<p>Contribute to methodology development; enhance national capacity in policy analysis; determination of factors underlying policy formulation; capacity building in information gathering and analysis, in impact analysis and in priority setting</p>
<p><b>Markets</b> – access to agricultural inputs and credit, information and markets at the local,</p>	<p>Generate and analyse data from the farm, the community, the market, and landscape levels</p>	<p>Methods and case studies of market analysis; capacity building</p>

Challenges	Contribution of Research	Niches and Roles of CGIAR
<p>national, and global level to assure that agriculture will be more commercialised in the future, focused on high value crops and products but not excluding other agricultural outputs.</p>	<p>Policy research in support of agricultural growth</p> <p>Factors (information, credit, and policies) that facilitate market development and functioning</p> <p>Identify commodities for small holder market development</p> <p>Barriers to market entry by small farmers and traders and institutions that facilitate their involvement</p> <p>Methods for encouraging informal markets</p>	
<p><b>Building institutional capacity</b> – enhanced human resource capacity at all levels of technology development and delivery process</p>	<p>Paradigm shift to research that benefits the smallholder majority</p> <p>Strengthen public awareness of NARS</p> <p>Partnerships for effective multi-institutional NARS</p> <p>Develop management capacity of NARIs</p> <p>Develop public awareness capacity of NARS</p>	<p>Provide specialised training ; facilitate development of local training capacity; resource persons in national and regional training as needed; catalyse action research across countries in organisational arrangements</p>
<p><b>Farmer Empowerment</b> – Farmers and communities empowered to help set the agenda and priorities for future agricultural research; promotion of farmer cooperatives for inputs, credit, and extension while recognizing the need to address gender and equity issues</p>	<p>Strengthen capacities of farmer based organisations</p> <p>Develop capacity of researchers to listen to farmers and to work in a more participatory manner</p>	<p>Develop new techniques and methods in appropriate techniques including participatory research, gender analysis, and scaling up for wider impact.</p>
<p><b>Technology Transfer</b> – by using new approaches to technology transfer, farmers will have access</p>	<p><i>Enhance technology transfer through participation and fully exploiting advances in information technology.</i></p>	<p>Integration of policy aspects of technology development and transfer; technical backstopping of</p>

Challenges	Contribution of Research	Niches and Roles of CGIAR
and adopt new technologies.	<p>Networks and spill over effects</p> <p>Researchers take a more active role the technology transfer process</p>	<p>networks; Enabling optimum use of new research and development; facilitating innovative approaches to technology transfer</p>

## *Annex 2 Elements of the Shared Vision developed at the Meeting of Minds I*

The CGIAR centres support the shared vision through the added value that they bring to collaborative activities. In particular, the CGIAR centres contribute new research approaches in natural resource management and policy, the strengthening of management sciences, the leveraging of funds and fortifying the research development continuum. In addition the CGIAR Centres occupy a strategic place in the NARI to ARI partnership continuum. Based on the discussions among participants, the following elements and key principles emerged to guide the development of the strategy to implement the shared vision

1. In support of the African Vision: CGIAR Centres will, in collaboration with National Agricultural Research Institutes (NARI's) and other African partners, contribute to the generation of international public goods in support of the African vision. The CGIAR centres are committed to enhancing African leadership at all levels of the research development continuum with collaboration based on African priorities.
2. Identification of Strategic Partners: In order to accelerate impact at the farm level, the CGIAR recognises the need to work with a broader range of partners directly involved in agricultural research and development. Emphasis will be on collaborative activities where impact is achieved at the farmer level through demand-driven participatory research.
3. Capacity Building: Through the NARS, the CGIAR Centres will contribute to strengthening human and institutional capacity. These needs include, but go well beyond, the strengthening of research skills. There is urgent need for strengthening capacity in the management and leadership of collaborative research and resource mobilisation. Technological and policy research are both essential in tackling these complex issues and are inexorably inter-linked. The CGIAR intends to strengthen the policy research capacity of NARS, through joint research on methodologies, multi-country comparisons, and responding to requests from policymakers as joint NARS-CGIAR activities.
4. Promotion of Increased Public Investment: Through the demonstration and documentation of large-scale impact from research, the CGIAR will assist NARS to encourage decision makers to increase investments in the public financing of agricultural research. The CGIAR will apply whatever leverage its components have to help attain the goal of increased public investment for all concerned in agricultural research.
5. Fostering Institutional Innovation: The CGIAR will foster innovations in partner organisations through appropriate methods including participatory research, integrated natural resource management approaches, and will contribute through action research to development of alternative institutional arrangements for technology development and delivery systems. The CGIAR

Centres will facilitate access to information and enhance communication between NARS and CGIAR Centres and among NARS partners

6. Mutual Ownership: As a guiding principle, mutual ownership of collaborative activities will be enhanced through full commitment of NARS and CGIAR Centres to joint planning and implementation, monitoring and evaluation. The purpose is to achieve interdependence between the NARS and the CGIAR Centres to help attain the goals of all concerned. To ensure complementarity and added value, collaborative activities between NARS and CGIAR Centres will be based on comparative advantages to ensure efficient use of limited human and physical resources.
- 7 Coordination among CGIAR Centres: CGIAR centres that are actively involved in SSA will coordinate their activities at the national, sub regional and regional level, with the oversight of the Committee on Sub-Saharan Africa of the CDC.

## Acronyms and Abbreviations

AfDB	African Development Bank
AgGDP	Agricultural Gross Domestic Product
ARI	Advanced Research Institute
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
AVRDC	Asian Vegetable Research and Development Centre
CABI	CAB International
CDC	Centre Directors Committee
CEO	Chief executive officer
CGIAR	Consultative Group on International Agricultural Research
CIAT	Centro Internacional de Agricultura Tropical
CILSS	Comité permanent inter-états de lutte contre la sécheresse dans le Sahel
CIRAD	Centre de coopération internationale en recherche agronomique pour le développement
CORAF	Conférence des responsables de recherche agronomique en Afrique de l'Ouest et du Centre
CRSP	Collaborative Research Support Program
CTA	Technical Centre for Agricultural and Rural Cooperation
EAAFRRO	East African Agricultural and Forestry Organization
EAC	East African Community
ECA	Economic Commission for Africa
EPMR	External Program and Management Review
ExCo	Executive Committee
FAO	Food and Agricultural Organization of the United Nations
FARA	Forum for Agricultural Research in Africa
FFA	Framework for Action
GDP	Gross Domestic Product
IARC	International Agricultural Research Centre
IBPGR	International Board for Plant Genetic Research
IBSRAM	International Board for Soil Research and Management
ICIPE	International Centre of Insect Physiology and Ecology
ICRAF	International Centre for Research in Agroforestry
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IFDC	International Fertilizer Development Centre
IGAD	Inter-Governmental Authority on Development
IITA	International Institute of Tropical Agriculture
ILRI	International Livestock Research Institute
INSAH	Institut du Sahel
ISNAR	International Service for National Agricultural Research
KARI	Kenya Agricultural Research Institute
NARI	National Agricultural Research Institute
NARS	National Agricultural Research System
NGO	Non-Governmental Organization
OAU	Organization of African Unity
ORSTOM	Institut français de recherche scientifique pour le développement en coopération
R & D	Research and development
SACCAR	Southern African Centre for Cooperation in Agricultural and Natural Resources Research and Training
SADC	Southern Africa Development Community
SFI	Sustainable Financing Initiative
SPAAR	Special Program for African Agricultural Research
SPGRC	SADC Plant Genetic Resources Centre
SRO	Sub-Regional Organization
SSA	Sub-Saharan Africa
SSAC	Sub-Saharan Africa Committee of CGIAR
TDT	Technology Development and Transfer
USAID	United States Agency for International Development
WARDA	West Africa Rice Development Association

