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Mobilizing Science for Global Food Security

CGIAR System Review—Preliminary Findings

Attached is a draft note prepared by the CGIAR System Review Secretariat outlining the Review Panel's preliminary findings. The note serves as background to Mr. Maurice Strong's presentation to the CGIAR and is subject to change on delivery (Agenda Item 4: *System Review of the CGIAR*). It is also intended as background to the Panel's interactions with various CGIAR constituencies preceding and during the Mid-Term Meeting.

CGIAR SYSTEM REVIEW

Preliminary Findings

MTM98 Brasilia

Notes for Presentation

Subject to Change on Delivery

Chairman: Maurice Strong

May 26, 1998

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1. Overview of Presentation

The following presentation of preliminary findings of the CGIAR System Review Panel will be organized as follows:

The CGIAR System

- Accomplishments and Assets
- New Challenges and Opportunities
- The CGIAR Mission

CGIAR Science and Strategy

- Genetic Technology
- Natural Resource Management Systems
- Knowledge and Information Systems
- Partnerships

Governance, Structure and Finance

- Criteria for Assessing Governance
- Governing Principles, Effectiveness and Efficiency
- Priority Setting, Monitoring and Evaluation, and Impact Assessment
- Financing, Financial Planning and Resource Allocation

2. The CGIAR System

The CGIAR is an extraordinary resource to help improve the lives of the poor and hungry in developing countries. It has an evolving and a vital role to play in meeting the global challenge of combating poverty and hunger in the 21st Century.

The CGIAR plays a unique, international, non-political leadership role that stems from its scientific expertise, its widely acknowledged and utilized research results, and its partnerships with NARS. The CGIAR has made major contributions to substantially increasing the productivity of staple food crops. Its efforts have benefited not only developing countries, but also developed countries.

Immense challenges remain. Although total global food production is sufficient to adequately feed all of the Earth's inhabitants, there are over 800 million chronically undernourished people without adequate access to food for a healthy and productive life. Over the next 20 years, an additional 2 billion people will be added to the population in developing countries.

The research and development challenge is to ensure that there will be sufficient food that is both accessible and affordable to meet the needs of the expanding population. This has

to be achieved through intensified use of finite natural resources, which themselves must be enhanced and preserved for future generations.

The CGIAR is ideally positioned to catalyze international and national agricultural research in the 21st Century. It has a unique opportunity to be at the core of a scientifically credible network of partners that will be critically important in mobilizing the political will and real commitment needed to promote food security and sustainable agricultural development in developing countries. The CGIAR should serve as the flagship of a global movement of science for sustainable food security and poverty alleviation.

2.1 Accomplishments and Assets

The future of the CGIAR lies in building on the strengths it has developed during the past 30 years. It must also withdraw from areas where its research centers no longer have a strategic advantage, and concentrate on mobilizing both frontier science and traditional wisdom for achieving the goals of a food secure and poverty-free world.

The CGIAR's comparative advantage is based on its mission, composition, character, and operations. The CGIAR is apolitical and non-governmental, giving it both autonomy and flexibility and facilitating effective cooperation between the CGIAR and both developing and developed countries.

The CGIAR's international status enables it to bring the scientific capacity and expertise of its 16 research centers and many partners to bear on the food production and food security related problems developing countries struggle to address. These countries are the CGIAR's primary partners, and through their NARS provide the CGIAR with direct access to their agricultural systems and indigenous genetic resources.

The CGIAR's credibility arises from its own scientific contributions to global research partnerships that address the biotechnological, agroecological, and socioeconomic constraints to agricultural development. The CGIAR is the largest international research network dealing with research in any sector. Although it accounts for some 4 percent of public investments in agricultural research, the CGIAR has had a greater international impact on increasing the productivity of the most important food crops than any other research entity.

CGIAR Major Accomplishments and Assets	
International Public Goods Creation	: Germplasm, NRM, Policies
Improved Food Security	: Productivity Increase for major food crops
Building Strategic Partnerships	: NARS, ARIs, NGOs, Private sector
Capacity Building	: Training and Institution Development
Diversity and Decentralization	: Location and Global Coverage
Mobilizing Research Funding	: Sustained Donor Commitment
Germplasm Collection	: Gene Banks

Science	:	Cadre of Committed Scientists
Performance and Effectiveness	:	High Rates of Return on Investment
Membership	:	North-South Committed Partnership

The CGIAR has an excellent track record in producing research output of applied importance. Research and training capacity in crops, livestock, agroforestry, forestry, and fisheries place the CGIAR in an unique position to conduct research on integrated food production systems. Its germplasm collections—the largest *ex situ* collections in the world—are another important asset.

The CGIAR's products and research are international public goods that have high applicability across countries and that will not be produced at optimal levels by individual countries alone. The global perspective of CGIAR center mandates and programs facilitates a clear focus on research problems that cut across national boundaries and lend themselves to international solutions and free access to all interested parties. The international status of the centers also protects them from undue political pressures and from purely national and regional influences.

The CGIAR centers have well established and functional global research networks, including good rapport and working relationships with NARS and alliances and partnerships with advanced research institutions, both public and private. These networks, along with the CGIAR's vast and impressive research and training infrastructure in four continents, facilitate the rapid advancement of sciences and technology for the benefit of developing countries. ARIs in developed countries often use the CGIAR centers as their entry point and their work in collaboration with and through the centers makes the CGIAR a vital part of the global delivery system.

The centers derive much of their strength and resilience from their diversity and their wide, decentralized geographical coverage. The advantages of decentralized operations have increased as the CGIAR has sought wider institutional participation and as communications and information technology has improved.

The scientific leadership of the centers and the sustained commitment of its donor community have contributed to the CGIAR's substantial impact on world food production. Its vast germplasm collections put the CGIAR system at the heart of the agricultural science revolution in the 21st Century. The CGIAR must grasp the opportunity to play a leading role in international agricultural research in the future.

2.2 New Challenges and Opportunities

In the next millennium, food and agricultural production have to be promoted with viable livelihoods and improved human well-being, while at the same time ensuring enhanced natural resources and environment at the local, national, and global levels. The

fundamental challenge facing agriculture in developing countries in the 21st Century is to increase food production in a sustainable way to feed expanding populations. Such an increase has to come primarily through the intensification of current agricultural production, as potential for bringing new land under cultivation in most countries is very limited. If hunger and poverty are to be reduced, this agricultural intensification must be both ecologically, socially, and economically sustainable.

New challenges and opportunities must be recognized and incorporated in research and development. Success will depend on the effective functioning of the whole continuum of actors and processes, including research, technology, infrastructure, good governance and policies, marketing and extension, combined with an international commitment to the plight of the poor. The weakest link will determine the impact of the entire system; hence, it is imperative that all partners play an effective and efficient role.

The CGIAR System	
New Challenges and Opportunities	
Biodiversity Convention	: Ownership and Use of genetic resources
Globalization & Trade Liberalization	: Policy Reforms and Competitiveness
Climate Change	: Impact-Production & Research Implications
Biotechnology & Biosafety	: Public and Private Sector Role
Intellectual Property Rights	: Access, Patents and Genetic Rights
Research and Development Funding	: ODA and Private sector
Global Forum	: Participation, Science and Policy
Global and National Disparities	: Poverty and Wealth

Bilateral and multilateral assistance to agriculture in developing countries amounted to \$10.3 billion in 1995, some 20 percent below 1991 aid levels. In a world of increasing globalization, trade liberalization, and international concern for the poor, these levels of ODA compare to agriculture subsidies of \$335 billion in the OECD and some \$10 billion in the developing countries as a whole. Obviously, much more needs to be done for agricultural development and research.

2.3 The CGIAR Mission

The CGIAR should be able to effectively respond to the challenges of the 21st Century. Its response must be based on a strengthened commitment to the sustainability of food production systems in developing countries. The overarching mission of the CGIAR is, therefore, perhaps more relevant today than ever before. However, the CGIAR's work will take place in an operating environment very different from that of the past. It will be characterized by reduced ODA budgets; growing membership from the South; increasingly capable NARS; international agreements and conventions in such areas as

climate change, biodiversity, and intellectual property; globalization of economies, policies, and research systems; and revolutionizing scientific advances in biotechnology and information technologies.

Proposed Mission Statement

Contribute, through research, to promoting sustainable agricultural development for food security and poverty alleviation. This mission to be achieved through research leadership, partnerships, networking and capacity building.

The global poverty and food security situation has never been more serious, and it may well worsen in the 21st Century. Agriculture must necessarily drive economic development in the world's poorest countries. Given the relevance of its mission and its scientific, non-political character, the CGIAR is ideally situated to bring together and catalyze the global research system to bring about technological empowerment of the poor through a skill revolution based on the collective knowledge of scientists and local communities.

The CGIAR should play an even larger and more important role in the coming decades than it did in its highly successful first 30 years. CGIAR scientists at the forefront of this global research effort will have to play a critical role in fulfilling its mission. In developing the CGIAR's vision and strategic perspective for the next 10 to 15 years, several major considerations need to be kept in mind.

3. CGIAR Science and Strategy

CGIAR Science and Strategy : Major Considerations

A CGIAR Research Strategy for the 21st Century

**Not a 3 or 5 year focus but a 10 to 15 year Strategic Perspective
Systems and Center Level Focus**

A Multi-dimensional Approach

Thematic Focus : Genetic Technology, NRM, Technology Management Systems ...

Regional focus : Africa, South Asia

A Holistic Strategy

**Linking Integrated Gene management and Natural resources
Contextual changes and new partnerships**

Partnerships Essential

Strategic Applied Research Focus

Upstream and downstream partnerships : Realism and Needs

No Magic Bullet

Clear and consistent operational application of CGIAR strategy

Consolidation at System and Center level

Science and Technology Revolution

Rapid Adaptation and Making Changes

What more the CGIAR should do?

What should it not do?

What should it do differently?

Global Research System

Not yet in existence

Developing a Functioning Global Knowledge System

incorporating each key component and mechanisms and fora for interaction

The CGIAR Challenge

Sound Strategy, Efficiency, Good Governance and Sufficient Funding

CGIAR's Unique membership of all Actors in Research to Development continuum

Science can best contribute to the CGIAR mission by generating new technology and enabling the CGIAR's partners to adapt it to the conditions of farmers to enable them to take full advantage of the new technology. It is more efficient to conduct most of this

type of research *internationally*, rather than at the national level. Adapting the technology developed through international research to farmer conditions requires strong *technology management systems at the national level*, based on appropriate policies, strong institutions, capable human resources, and effective information and knowledge systems.

The two strategic pillars for CGIAR science are:

- high performing genotypes (*genetic technology*)
- better practices for managing the resources devoted to agriculture (*NRM systems*)

For the foreseeable future the CGIAR has a significant role to play in three areas:

- developing genetic technology
- developing NRM technology
- strengthening technology management systems in developing countries.

3.1 Developing genetic technology

For developing genetic technology, integrated gene management, combining traditional breeding with advanced molecular techniques is essential. This requires:

- understanding more fully the genetic potential of conserved germplasm (of relevance to the CGIAR mission)
- working with the best institutions in the world in solving specific research problems (through international networks).

Integrated Gene Management (IGM) is the production of performing genotypes, through a coherent approach incorporating:

- genetic resources (primarily collection, characterization, and conservation of crops, livestock, fisheries and forestry; both *ex situ* and *in situ*.)
- biotechnology/genomics (combining Mendelian and molecular breeding)
- biosafety (principles and policy of universally accepted biosafety protocols)
- intellectual property strategies (proprietary issues related to genetic collections and improved germplasm)
- policy research (related to various aspects of IGM).

The ability of many NARS to incorporate all the scientific and technological capacity necessary to create performing varieties in the next 10 years will be limited. The involvement of ARIs and private companies will certainly increase in the future, but will be focused primarily on a limited number of species of high economic importance and/or on traits of interest for agriculture in developed countries. It is therefore important that the CGIAR play a major role in all aspects of IGM, focused on application in the developing countries.

The IGM strategy should be implemented primarily through Center-based research. Partnerships should be developed with those entities who are most capable in each area of IGM. These partnerships will likely take place with ARIs, the private sector and strong NARS. Centers can engage in meaningful research partnerships only insofar as they maintain first-rate capacity in these research areas.

In relation to biotechnology and genomics, classical improved varieties will continue to be important, and the Centers could maintain capacity in this area. At the same time, it is evident that biotechnology will play an increasingly important role in all aspects of integrated gene management, including:

- Molecular analysis for characterization of genetic resources
- Identification of genes of agricultural interest and studies of their regulation
- Utilization of vitro methods, transgenesis, etc.

The CGIAR Centers should pursue biotechnology as a tool insofar as it contributes to the public goods nature of the CGIAR and to the well-being of the poor. CGIAR research must address the development of products and processes unlikely to be provided by the private sector and ARIs. At the same time, much of the biotechnology research undertaken by the Centers will have to be carried out in collaboration with ARIs and private-sector entities, which already are substantively engaged in such research. The Panel is carefully considering the recommendations of the CGIAR specialist panel on general issues in biotechnology, and expects to make specific recommendations in this important area.

Intellectual Property: In the long term, most new varieties will include patented genes, at least for the world's main crops. As a result, genetically transformed organisms will be patented and are expected to represent the largest proportion of the market for varieties. If this legislation ultimately becomes an international standard, genome privatization will rapidly gain acceptance. In addition, cloned genes of potential agricultural interest coming from plants and microorganisms will play a growing role in the creation of modern varieties and most of these genes will have private ownership. Patents likely will carry long duration. A small number of corporations will comprise the primary patent holders. NGOs, producers' organizations and public researchers may oppose this evolution, though the trend appears irreversible.

Thus, a critical component of Integrated Gene Management is the capacity to address proprietary issues related to genetic collections and improved germplasm. To date, the Centers do not yet have a strong capacity to manage intellectual property rights. Policies and programs to do so are not yet in place.

3.2 Alternative Intellectual Property Strategies

- Development of a central Biotechnology/IPR unit within the CGIAR capable of giving professional advice to the Centers on proprietary and biosafety considerations, and of helping in negotiations with potential collaborators. This unit could also provide advice for NARS.
- The CGIAR could propose negotiations between the private and public sectors on patents in order to allow the use of interesting techniques or transformed varieties in low-income agricultural areas.
- The CGIAR as a community representing international public interest and the interest of the poor could ask for a reduction in patent lengths, if there is a debate under the next WTO round of negotiations.
- The CGIAR could patent innovations.
- Establishment of a central mechanism within the CGIAR to hold patents.

3.3 Possible Courses of Action Concerning IGM

Integrated Gene Management and its components can also be conceptualized within the context of the basic principles of the Convention on Biological Diversity: conservation, sustainable use, and equitable sharing of benefits.

Conservation: In this area, IARCs can help strengthen the continuum in the three major methods of conservation of agrobiodiversity: in situ; in situ/on-farm; and ex situ.

- A distinctive contribution of the CGIAR could be in enlarging the composition of the food basket by including crops of nutritional and regional importance.
- IARCs' distinctive contributions could be in the areas of ex situ preservation in gene banks and in situ/on-farm conservation by farm women and men, through participatory breeding and market linkages.

Sustainable Use:

- Integrating Mendelian and molecular breeding and distribution of novel genetic combinations to NARS for developing location-specific varieties designed to promote ecologically desirable agricultural practices.
- Prevent nutritious crops becoming "lost" crops through participatory breeding and by creating an economic stake in their conservation and improvement.
- Launching a Global Partnership in Genomics and Molecular Breeding, bringing together advanced and applied research institutions, on the model of the Rockefeller Foundation-supported Rice Biotechnology program.
- Establishing a policy framework for biosafety and gene deployment, to help to avoid risks and to promote the safe use of molecular breeding techniques.

Equitable Sharing of Benefits:

- Strengthen steps to protect the equitable use of CGIAR germplasm held in trust under agreement with FAO.
- Assist FAO in finalizing the revised international undertaking on Genetic Resources and assist in getting it included as a protocol under CBD.
- Work with FAO in promoting a multilateral system of exchange of genetic resources in crops of importance to food and nutrition security.
- Assist NARS, upon request, with information relevant to the equitable sharing of benefits with the conservers of genetic resources and holders of traditional knowledge.
- Promote the integration of principles of equity and ethics in the use of genetic resources and information at the international level.

3.4 Developing Natural Resources Management (NRM) Systems

The integration of agriculture and sustainability issues requires establishing research programs and policies at different levels of organization, including local, national and international. Such research areas include:

- the sustainable utilization of natural resources for agriculture (water, soil fertility, forests, aquatic resources, biodiversity, etc.)
- international agreements and conventions
- the Ecoregional Approach

Developing NRM systems will require a different modality from that of Integrated Gene Management. This aspect of agricultural research should be mainly based on the coordination by Centers of numerous and diverse external partners, including NARS, ARIs and NGOs, around common projects and consortia.

It requires research on water, soils, biodiversity, forests and agroforestry, aquatic resources, and integrated(crops/livestock/fisheries/agroforestry) food production systems. Continued research is needed in each of these areas, and there is growing recognition of the importance of integrated approaches to such research. Improved understanding of the socioeconomic aspects of production practices is also necessary in promoting sustainable management of natural resources.

Example: Fresh Water

Unless properly managed, fresh water may be the most important constraint to food production in the coming decades. It is estimated that by 2025, some 50 countries -- home to 3 billion people -- could face water stress.

Growth in irrigation is projected to slow significantly, with India likely showing the largest increase in irrigated cropland. Africa is likely to be the locus of severe water stress. Research in rainfed agriculture will become increasingly important.

Ecoregional Approach: The various challenges to sustainable management of natural resources for agricultural development, including water scarcity, soil degradation, biodiversity conservation, etc., are largely ecoregional in nature and require ecoregional solutions. The CGIAR has placed emphasis on the ecoregional approach; however, the approach is not yet well defined. In some ways it appears that the original spirit of the ecoregional approach -- to create a force to address specific critical problems in specific areas -- has been diluted.

Much of the lack of progress in implementing the ecoregional approach can be attributed to: the reorganization required within Centers to develop a new paradigm for research and to form the wider partnerships required for these global imperatives; lack of appropriate governance mechanisms; mechanisms based on participatory decision making across large numbers of NARIs; and a proliferation of research sites.

Active interaction is needed with regional stakeholders so that CGIAR priorities are compatible with and supplementary to NARS' programs and research agendas. Ecoregional research requires increased collaboration with NARS and ARIs, and a stronger emphasis on incorporating indigenous and farmer knowledge and innovation systems.

While there is a need to concentrate on NRM studies that have international dimensions, it will be difficult to find such general NRM situations. Concentrating on site-specific NRM studies with thorough site characterization will ensure good extrapolation of the approach to other sites. The CGIAR needs an effective management model for ecoregional research.

Options for the Ecoregional Approach

- A medium-term strategy of “role modeling” the ecoregional approach and helping build NARS’ capacity to implement it could be pursued.
- Enable ecoregional projects to be managed and governed by NARS and regional research organizations.
- The CGIAR could assist NARS and regional groupings in developing ecoregional research strategies.

International agreements and conventions: Since UNCED in 1992, a majority of governments have signed a number of important international agreements and conventions. These include the Convention on Biological Diversity, conventions on Climate Change, Forestry and Desertification, the FAO Global Plan of Action on Plant Genetic Resources, and the Plan of Action of the World Food Summit. The upcoming TRIPs agreement of the WTO, with its implications for intellectual property rights, is yet another important development.

While the CGIAR, as an apolitical entity, has not directly participated in these conventions and agreements, each of these agreements carries implications for the operating environment of the CGIAR and its Centers. Additionally, these agreements and conventions include clear challenges for the international development community, including research institutions.

Options for International Agreements and Conventions

- The CGIAR could develop its research priorities in line with the goals and strategies of international agreements in areas relating to food security, sustainability and poverty alleviation.
- The CGIAR could play a leadership role in international fora of relevance to its mission.

3.5 Strengthening Technology Management Systems

Strengthening technology management systems will require:

- research on and services to individual countries on ways of improving policies, institutions, human resources, and information and knowledge systems
- research at the international and regional-level on policies and institutions
- services at the international and regional level on human resource development and information and knowledge systems

Policy Research: Food security, sustainability and poverty alleviation can only be achieved if appropriate policies and investments are in place. From the farm level to the national level, many policies affect food production systems, including trade and macroeconomic policies, water management and allocation policies, property rights, agricultural input and output markets, and rural infrastructure and financial markets.

Policy research should remain an important part of the CGIAR research strategy in the coming decades. However, policy research alone is not enough. Policy research must be applied and implemented to be effective.

Options for Policy Research

- Cosponsors and the CGIAR should collaborate in the implementation of policy research conducted by CGIAR Centers.
- The CGIAR should aim to recognize the broader base of processes and resources required to underpin poverty alleviation (i.e. cash crops, forestry, fish products, political structure and local and global environmental conditions and economic services).

Capacity strengthening: The CGIAR should contribute to capacity strengthening in NARS, in such areas as organization, training and information. Adapting the products of the CGIAR's research involves the improvement of production practices at the field level, including: the screening of existing (traditional or "modern") varieties for their performances in different farming and food preparation conditions; the definition of appropriate cultivation methods; and the improvement of post-harvest conservation methods. This is based in large part on adaptive research, taking into account local situations. NARS should play the primary role in this component of research, taking leadership for program definition and implementation.

Knowledge and Information Systems: Using advances in information technologies in the establishment of knowledge and information systems will bridge the two pillars of the CGIAR's research strategy (IGM and NRM), and will also enable information sharing across the CGIAR's broad range of partnerships, from farmers and NGOs to ARIs and private companies.

Farmers' experiences and innovations with respect to locally bred varieties, germplasm evaluation and characterization, in situ conservation, and managing complex food production systems must be valued and incorporated into formal research efforts. Indigenous and farmer knowledge, combined with new and classical scientific knowledge, is the most direct and effective approach to finding appropriate solutions to the challenges of food security, sustainable agriculture and poverty alleviation.

Information technologies, in such forms as Geographic Information Systems, also can be harnessed to create expert knowledge systems linking genomic information with site-specific ecological conditions for research and decisionmaking. GIS development could be nurtured to support agricultural research.

Options for Information and Knowledge Systems

- The Review Panel is examining the potential lead role for the CGIAR in building a Global Agricultural Science and Technology Information System, with the support and participation of CGIAR Cosponsors and research partners.

3.6 Partnerships

In the evolution of the two pillars of the CGIAR research strategy (IGM and NRM), complementarities and partnerships must be optimized. The CGIAR would focus its limited resources on strategic applied research, in which it effectively bridges the work of its upstream partners with that of its downstream partners. Partnerships need to be developed on a case-by-case basis, based upon strategic advantages and mutual benefit, and within the context of the CGIAR's mission. Partnerships should be strengthened with NARS, ARIs, NGOs, and the private sector.

Options for Partnerships

- Encourage the internationalization of certain strong NARS whereby they provide assistance and research services to less capable counterparts.
- The CGIAR should assume a key role in promoting South-South cooperation among NARS.
- Creating "associate centers" to collaborate with CGIAR Centers on a cost-sharing or cost-free basis.
- Convene a consultative meeting to discuss outstanding partnership issues, especially but not exclusively those with respect to the private sector. Such a meeting would bring together all concerned parties to discuss and resolve any remaining barriers to better cooperative relationships.
- The CGIAR and its Cosponsors could actively support and strengthen the Global Forum.

3.7 Regional Strategies

As part of a multi-dimensional CGIAR strategy for the 21st Century, the needs and opportunities of different regions of the developing world require different strategies to address food security, sustainable agricultural development and poverty alleviation.

An African Example: Sub-Saharan Africa's share of the world's food insecure is projected to rise to nearly 40 percent of the total SSA population by 2010. At that time, every third person in the region is likely to be food insecure, with some 300 million people chronically undernourished. Here, poverty is coupled with troubling depletion of the natural resource base, including soil fertility, water, forests and rangelands. Desertification is likely to worsen, as a result of recurrent drought and the potential deleterious effects of climate change. Agricultural development in Africa has historically been hampered by market and policy failure, insufficient infrastructure and low level of agricultural inputs, all resulting in food deficits met by a reliance on food imports and food aid.

In 2020, the population is projected to total some 1180 million. Food production is projected to reach about 165 million tons of maize equivalent. Even with no change in the low average per capita consumption from present levels, aggregate food requirements will be about 250 million tons. The 90 million tons of food gap will be almost nine times today's gap. In the last few years, food aid has varied around 5 million tons of cereals and cannot conceivably increase sufficiently to fill this gap.

The challenge to the research and development community in Africa and its international partners is enormous. CGIAR has devoted some 40% of its resources to Africa but the 21st century challenge remains formidable. Research strategies which resulted in unprecedented increases in food production in Asia over the past three decades have achieved considerably less in Africa.

The panel is consulting the CGIAR centers, Cosponsors, donors and member countries for a concerted research strategy for sustainable agriculture development for food security and poverty alleviation in this region.

4. Governance, Structure and Finance in the CGIAR

In reviewing issues of governance, structure and finance in the CGIAR, the Panel has benefited from the inputs of a wide variety of stakeholders of the System. We have completed our preliminary diagnosis, have identified several key issues, and are carefully examining a number of options. These will be presented here. We welcome your comments.

The Panel's **objective** is to assist the CGIAR more effectively and efficiently exercise authority and influence in managing the CGIAR System's activities. The key **issues** being examined by the Panel are:

- Implications of the CGIAR Mission on Governance
- Options for Governance
- Criteria for Assessing Governance

- Appropriateness of the CGIAR’s Governing Principles
- Effectiveness and Efficiency at System and Center levels
- Financing, Financial Planning, and Resource Allocation
- Priority Setting, Monitoring and Evaluation, and Impact Assessment

The Panel is paying particular attention to creating an environment and governance system that can:

- respond quickly to change
- continually renew itself by addressing and adopting new ideas and making tough decisions (underperforming people, underperforming programs, underperforming Centers)
- focus existing resources to the best priorities
- mobilize financial resources for evolving priorities
- reallocate resources from the old to the new
- demonstrate and publicize the critical role of international agricultural research in feeding the world, reducing poverty, and protecting the earth
- raise the CGIAR’s visibility with key audiences critical to the long-term success of its mission
- attract and retain excellent people

4.1 Implications of the CGIAR Mission on Governance

The Panel has identified several features of the 21st century context and the proposed CGIAR mission that will have important implications for governance in the CGIAR. These are listed below:

Features	Implications
The requirements of sustainable agricultural development are many and multi-faceted	Maintain current focus on research, emphasizing the CGIAR’s strategic niche in the global system
Food security, sustainable development, and poverty alleviation are the responsibility of many actors	Further develop an open system based on collaboration and partnerships
The external environment continues to evolve rapidly	Improve adaptation and flexibility
International agreements, conventions and undertakings are becoming increasingly important	Become a strong player in international fora, and take a stand on sensitive issues
Multiplicity of stakeholder views within the CGIAR and among its external partners	Strengthen capacity to develop and implement “CGIAR” policies
Issues of globalization, privatization, and technological change are inherently multi-dimensional and complex	Improve responsiveness, at both the System and Center levels, to technical, economic and political considerations
With continued System Renewal, the need for participation, transparency and accountability will increase	Suitably adjust the system of governance, guiding principles, and mode of operation
With increased partnerships, comes the need for improving complementarities and reducing duplication	Suitably adjust the System’s structure and decision-making processes
If development assistance declines further, the pressure to provide funds directly to NARS may intensify	Mobilizing Funding for the CGIAR from new and emerging sources e.g. Foundations, Private Sector.

Options for Governance

In examining the future needs of the CGIAR, the Panel is examining four “Models” of Governance: a) by Community; b) by Free Market; c) by Hierarchy; and d) a combination model (community, free market, hierarchy). Our assessment is that at the System level, the CGIAR best resembles the “governance by community” model. It seeks agreement among independent actors on the basis of common objectives, shared norms, long-standing traditions, and face-to-face relationships and reciprocity. At the Center level, there is an increasing influence of “free market” forces, whereby, in funding the research agenda, the System respects member sovereignty and center autonomy. Within the Centers (the only “legal” bodies of the CGIAR), there is “governance by hierarchy”. Each Center’s board and management rely on explicit policies, defined responsibilities, and clear accountability (the “private sector” model). Thus, the “CGIAR System” is a hybrid of all three models of governance.

Furthermore, the CGIAR has been responsive to changes in its external environment and to its Agenda for Renewal. The system of governance continues to evolve, as new needs are recognized. However, the governance system is over-stretched, and is perceived to be top-heavy, process-oriented, and complex. It needs to be better aligned to the System’s proposed mission and strategic needs in the future.

4.2 Options at the System level

The Panel is examining three main options:

- Maintain the status-quo: maintaining “governance by community” model
- Modify the status-quo model: streamline processes and mechanisms (e.g., have fewer committees and meetings)
- Establish a central CGIAR Board: strengthen the CGIAR’s policy making and and/or Executive Committee oversight functions, streamline processes, and strengthen Center autonomy and accountability.

4.3 Criteria for Assessing Governance

Five **criteria** are currently accepted within the CGIAR:

- efficiency: cost effectiveness and value for money, & low transaction costs
- transparency: clarity of how decisions are made
- accountability: for financial, corporate and input/output decisions
- participation: access to and openness of activities/decision-making processes
- flexibility: ease of adaptation of structure and activities, as needed

The System believes these criteria are consistent with its “**principles**” of Governance:

- non-political character
- member sovereignty
- center autonomy
- consensus decision-making
- independent scientific advice

The Panel accepts these criteria and principles as important for the CGIAR. However, based on its careful assessment, the Panel believes the System does **not** score very well on the current criteria for assessing governance. The Panel also believes that some additional “**central values**” should be crucial for an entity producing research results of global relevance, with a primary focus on developing countries. These are:

- ensure a focused program, pursuing the CGIAR’s strategy and research agenda
- ensure the ability to foster innovation and risk-taking
- ensure the ability and processes to manage and resolve conflicts
- ensure the ability to rapidly adapt to external change
- ensure a responsive, non-bureaucratic approach to governance

These can serve as additional criteria for assessing and adapting the governance system in the future.

4.4 Appropriateness of the CGIAR’s Governing Principles

The Panel has also examined the continuing appropriateness of the current “principles” of governance. It is convinced that these principles will **remain valuable**, but will need to be **suitably modified** to better align them to the CGIAR’s future vision, mission and strategy. The basis for this conclusion is tabulated below.

Principles	Pressures/Opportunities	Future Challenges/Adaptations Required
non-political character	influencing and complying with international agreements and conventions	<ul style="list-style-type: none"> • ensure the ability to formulate policy on strategic issues • ensure the ability to foster innovation and risk-taking • ensure the ability and processes to manage and resolve conflicts
member sovereignty	diverse interests of new, and more numerous, CGIAR members and stakeholders	<ul style="list-style-type: none"> • ensure adherence to CGIAR's vision, mission, and research strategy • ensure member commitment to, and funding of, agreed research agenda • ensure transparency and accountability of decision-making processes
center autonomy	global issues are common to Centers; need to create synergies across Centers, and reduce duplication	<ul style="list-style-type: none"> • ensure coherence of CGIAR's strategic research agenda • ensure close collaboration on a regional and thematic basis, across program activities and Centers, as appropriate
consensus decision-making	with system expansion, consensus is harder to achieve	<ul style="list-style-type: none"> • ensure the ability to rapidly adapt to external change • ensure ability to reach agreement on, and oversee, CGIAR policies
independent scientific advice	global research agenda is becoming much broader, and at the same time more specialized	<ul style="list-style-type: none"> • ensure strategic advice on a variety of complex issues • ensure effective oversight of a research program focused on the CGIAR's strategic goals • ensure that the Centers' research is not primarily "donor driven"
informality	larger number of internal and external stakeholders and partners	<ul style="list-style-type: none"> • ensure that decisions are taken in a timely and transparent manner • ensure responsive, non-bureaucratic, and efficient governance

4.5 Effectiveness and Efficiency at System and Center Levels

The key **issues** being examined by the Panel are:

- Implications of the continuing expansion of CGIAR membership
- The need to enter into Agreements with other international bodies
- Leadership of the CGIAR, and the role of the Chair
- The role of Cosponsors of the CGIAR
- The role and functioning of various Committees and Secretariats
- The mode of operation of the CGIAR -- its decision processes, accountability mechanisms, frequency and efficiency of meetings, the mode of reaching consensus, and follow-up of decisions taken, etc.
- The role of Center Boards and Management in relation to CGIAR governance.

Some of the **options** being considered by the Panel are:

- No change: remain an informal association, retain current roles and processes, and gradually expand and diversify CGIAR membership (from the South, NGOs, and the private sector)
- Gradually develop the CGIAR into a formal “legal” organization
- Consider other actions for strengthening governance of the CGIAR (see Box below).

4.6 Some of the actions/suggestions being considered in depth

At the System level:

- Ensure greater coherence of the System, especially in policy-making and oversight
- Examine the need for providing a “legal” status for the CGIAR (but avoiding a “UN-type” formal organization)
- Establish a CGIAR Board and Executive Committee, with full-time CGIAR Chair
- Ensure a more proactive role of all the Cosponsors (not only the World Bank)
- Ensure closer collaboration with FAO, UNDP, UNEP, the World Bank and other development agencies
- Ensure closer collaboration with other partners (ARI’s, associate centers, networks, etc.)
- Streamline and rationalize roles and responsibilities of various Committees and Secretariats
- Improve the effectiveness of Committees, and the quality of discussions at CGIAR meetings
- Expand, restructure, rationalize or consolidate Centers or their activities, perhaps on a thematic or regional basis, as appropriate
- Ensure closer collaboration with the global and regional fora of NARS

- Ensure that CGIAR meetings (ICW and MTM) become more transparent and efficient
- Ensure closer linkage between governance at the System and Center levels.

At the Center level:

- Strengthen the decentralized management of independent Centers operating within the CGIAR System
- Ensure closer collaboration among the Boards and managements of Centers
- Ensure greater accountability of Centers' Boards for System-related issues
- Improve gender, nationality, and other types of diversity in the Boards, management and staff of the Centers.

4.7 Priority Setting, Monitoring and Evaluation, and Impact Assessment

The **issues** being examined in this area of governance include the following:

- Effectiveness of TAC's advisory role in formulating the CGIAR's strategy, research agenda, and priorities
- Effectiveness of monitoring and evaluation and impact assessment (by TAC, IAEG and the Centers)
- The role of NARS and other partners in planning and priority setting, at both the System and Center levels
- Improving the Centers' accountability to CGIAR members for research outcomes and impact
- Addressing the perception that the Centers are over-reviewed by the System and its members (through EPMRs, CCERs, and other reviews/reports prepared for individual members/donors).

The **options** being considered are:

- Rationalizing the functions of TAC and the IAEG
- Strengthening the vertically integrated system of planning, review and impact assessment
- Obtaining members/donors agreement on CGIAR policies and standards for reviews and impact assessment.

4.8 Financing, Financial Planning, and Resource Allocation

The Panel is also examining several **issues** related to financial matters. These include the following:

- Leveraging the CGIAR's important, though small, contribution to global research efforts
- Ensuring increased ODA assistance to the CGIAR

- Ensuring a suitable North/South balance in funding of, and influence on, the research agenda
- Ensuring predictability and stability of funding for the CGIAR-supported Centers
- Ensuring rational resource allocation for CGIAR-supported research
- Ensuring a suitable modality for funding research (restricted vs. unrestricted funds)
- Ensuring adequate protection of the CGIAR research agenda (and related issues of the disbursement practices of CGIAR members)
- Financial planning and resource allocation at the CGIAR level (including roles of the World Bank and the Finance Committee).

The **options** being considered include:

- No change: continue to seek a gradual increase in funding from existing sources, and seek to stabilize, expand, and diversify the financial base
- Intensify fund-raising efforts from traditional as well as non-traditional sources (to help achieve a target of, say, 1% of ODA)
- Consider other measures: such as seeking supplementary funding from new sources (e.g., the private sector); establish a CGIAR Foundation to facilitate collaboration with the private sector and NGOs; income resulting from proprietary science undertaken by CGIAR Centers, mainly in collaboration with others.

5.0 Acknowledgments and Next Steps

On all these issues and options -- for **each** of the governance, structure and finance aspects being examined by the System Review Panel -- there is a lot more that the Panel has discussed, both with its specialist sub-panels and with others in the CGIAR System. The Panel's Secretariat and resource persons have been very helpful in all our work. We have also received a large number of submissions from members of the CGIAR community -- individuals, board members and Chairs, DGs, CGIAR members, committee members, and others associated with the work of the System. We greatly appreciate this interest and support for the Panel's work, and assure you that your views are a very important for the CGIAR and the Panel.

During these MTM meetings, we will listen carefully to your comments, concerns and suggestions, both in the plenary sessions and in our interactions with various Committees and other stakeholders of the CGIAR System. We will then continue with our consultation process, with meetings at Nairobi and in Los Banos, the Philippines and, of course, continued discussions with our sub-panel members. The Panel expects to complete its work in time for the ICW98 discussions in Washington later this year, as announced earlier. We look forward to your continuing interest and support for the Panel's efforts in strengthening the excellent CGIAR System even further.