

**ELECTRONIC CONFERENCE
ON
CGIAR GOVERNANCE, ORGANIZATION AND STRUCTURE**

FINAL SYNTHESIS¹

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TABLE OF CONTENTS

<u>ACRONYMS</u>	i
<u>BACKGROUND</u>	1
<u>STRUCTURE AND GOVERNANCE FOLLOW PURPOSE AND FUNCTION</u>	1
<u>MANAGEMENT OF GENETIC RESOURCES AND INTELLECTUAL PROPERTY</u>	2
<u>MANAGING GLOBAL, REGIONAL AND ECOREGIONAL PROGRAMS</u>	4
<u>ALTERNATIVE MODELS FOR THE ORGANIZATION AND MANAGEMENT OF THE CENTERS AND THE CENTRAL BODIES OF THE CGIAR</u>	6
<u>CONCLUSIONS</u>	15

ACRONYMS

ARI	Advanced Research Institute
BOT	Board of Trustees
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza (Tropical Agricultural Research and Higher Education Center)
CG	Consultative Group (abbreviation for CGIAR)
CG Center	Synonym of IARC
CGIAR	Consultative Group for International Agricultural Research
CIAT	Centro Internacional de Agricultura Tropical (International Center for Tropical Agriculture)
CIP	Centro Internacional de la Papa (International Potato Center)
FAO	Food and Agriculture Organization of the United Nations
GRM	Genetic resource management
IARC	International Agricultural Research Centers
ICRAF	International Centre for Research in Agroforestry
ICRISAT	International Crop Research Institute for the Semi-Arid Tropics
ICW	International Centers' Week
IGRM	Integrated genetic resource management
IITA	International Institute for Tropical Agriculture
IPR	Intellectual property rights
MTM	Mid-Term Meeting
NARO	National Agricultural Research Organization
NARS	National Agricultural Research System
NGO	Non-Governmental Organization
NRM	Natural resource management
PE	Poverty eradication
TAC	Technical Advisory Committee
WARDA	West Africa Rice Development Association

BACKGROUND

The Electronic Conference on “CGIAR Governance, Organization and Structure” took place between 24 July and 25 August, 2000. The conference was convened by the Technical Advisory Committee (TAC) and the Oversight Committee of the Consultative Group on International Agricultural Research (CGIAR), and was managed by RIMISP, Chile.

The objective of the conference was to contribute recommendations from a diverse group of interested individuals, to the formulation of a new structure and governance for the CGIAR, in accordance with the new vision and strategy that has been recently approved by its members.

This conference was preceded by a similar one, held earlier in the year, that focused on the new vision and strategy for the CGIAR.

The specific issues discussed during the conference were: (a) managing genetic resources and intellectual property; (b) management of global, regional and ecoregional programmes; (c) management and structure of the International Agricultural Research Centers, and; (d) reforming the central bodies and functions of the CGIAR.

Close to 500 persons from all over the world participated in this dialogue. Seventy four messages were exchanged during the conference. The background documents and all the messages are posted at <http://www.rimisp.cl/cg2010b>

STRUCTURE AND GOVERNANCE FOLLOW PURPOSE AND FUNCTION

The discussion was marked by the topics discussed during the first two weeks: management of genetic resources and intellectual property, and management of global, regional and ecoregional programs. While the second question could be thought of as an organizational principle applicable to the different objectives of the CGIAR, it in fact was associated to the more specific question of poverty reduction, or of NRM for poverty reduction.

During the debate it became clear that managing genetic resources and erradicating poverty are not easily compatible objectives from the point of view of structure, organization and governance.

Contributors to the discussion on genetic resources emphasized the central importance of the new developments in biotechnology, the leading role of the private sector, the need to consider intellectual property rights, the obligations imposed by international agreements, and the comparative advantage of highly specialized advanced research organizations that command many more resources of all kinds than those that can be movilized by the CGIAR. Advances in genetic resource management are increasingly market-driven. In short, the issues of genetic resources and intellectual property rights are shaped by powerful

trends in science and the global economy that the CGIAR can influence only in a very limited way.

The discussion on poverty reduction and NRM stressed a quite different set of actors, determinants and opportunities. The key CGIAR partners include national governments, NARS, NGO, and farmers' organizations. Embedding CGIAR research within comprehensive development policies and programs is highlighted as a condition for impact. The link between strategic research and delivery, adaptation and diffusion of technology becomes essential, and is also the case of the development of local institutions to support technological innovation. Research that targets poverty and NRM tends to be more site-specific, and participatory research approaches are necessary for success.

Can a single organization, structure and governance system serve effectively both sets of issues? While there are some areas in which intersection does seem to be clearly possible, the debate held during this conference made it clear that accomplishing this is not an easy task.

MANAGEMENT OF GENETIC RESOURCES AND INTELLECTUAL PROPERTY

The following are the main topics and arguments of this section of the conference:

1. The Genetic Resources issue is not driving the debate about structure and governance. As one contributor put it, "to a large extent this is an issue at the mercy of the restructuring." Along this line, some even argued that this issue should be somehow be left out of the considerations of structure and reorganization of the system. Those who will have the responsibility of making the final decisions about the new CGIAR structure and governance, should perhaps read this agreement as a warning light.
2. Greater coordination is necessary for policy, information and management of genetic resources. In addition new scientific developments call for greater coordination, such as applications across related species. "Collective management" is required to provide a framework in which collections are conserved, maintained, regenerated, characterized and evaluated. The CGIAR cannot afford to have complete autonomy of the Centers and a collectively managed Genetic Resources program. Centers must cede some authority to a central authority, and they must be prepared to live up to their commitment.
3. Strong arguments were provided by many participants against the idea of complete centralization of GRM under a Corporate model. Such a system would be costly to establish and maintain. It would risk compromising the nature of the CGIAR as "an international public goods institution." It would eventually lead to the separation of germplasm conservation and utilization. Finally, it was extensively argued that major legal complexities would need to be resolved before such a fully centralized system could be put in place.

4. Genetic Resource Management (GRM) involves collection, conservation, characterization and utilization of germplasm. All participants agreed that it was imperative to maintain close links between collection, conservation, characterization and exchange, on one hand, and utilization of germplasm, improved genotypes and protection of intellectual property on the other. Greater coordination of efforts cannot imperil these strong links.

5. A "defensive IPR policy" was favored by many participants from the CGIAR and the CGIAR donor communities, as the best way of optimizing the prospects of benefits of GRM reaching the poor. The notion of the CGIAR's germplasm collection as "bargaining chips" came up often: the CG should strive to negotiate joint ventures with the private sector, to stimulate it to contribute to the needs of poor farmers and marginal regions. They argued that such a policy would be in the spirit of the CGIAR as an international public goods institution. It was recognized that some exceptions may be necessary to offer exclusive licenses to ensure the full development and delivery of some technologies (e.g. animal vaccines).

Representatives of the private sector argued that "in the age of biotechnology and IPR, the time honored and noble concept of 'international public goods' relative to genetically improved material is essentially obsolete and needs to be redefined... [the concept of] Internationally Public Goods is irreconcilable with proprietary technology, IPR and responsible biosafety... the private sector is willing to license important proprietary technology for the benefit of the CG genetic improvement goals, but only on a negotiated basis... the private sector cannot and will not share competitive technologies for incorporation in products which will be disseminated in an uncontrolled manner."

Some participants from NARS argued that the CGIAR should not do anything that a private company could do; it is not the role of an international public goods organization to cooperate nor to compete with the private sector. The basic criteria for an international public goods institution is to correct market failures, of which there are several in the area of genetic resources: access by the poor and long term consequences of present day decisions are two that are of particular importance.

Participants from the NGO community, argued that the CGIAR should act as a counterforce to the private sector, to mitigate or compensate its growing influence on the direction of scientific developments.

In conclusion, this is an area in which there are still major disagreements about vision and strategy. As a result, the range of options about structure, organization and governance is also very wide.

6. With respect to the question of funding the genetic resources activities of the CGIAR, most of the contributions stressed that this issue could not and should not continue to be approached as one which is of exclusive interest only to developing countries, development goals or even to agriculture. The formula of seeking an Endowment Fund outside the traditional funding sources of the CGIAR, received wide support. Support for such Fund

could come from organizations that have a global and long range mandate, such as the United Nations (FAO), for whom the Centers maintain the genebanks in trust. The essential characteristic of such a Fund should be to provide very long term support to an activity that is of interest to the global community and that needs to be based on the criteria of "consistency, long-term planning, transparency and [close agreement with] international agreements."

MANAGING GLOBAL, REGIONAL AND ECOREGIONAL PROGRAMS

As already mentioned, the discussion under this heading rapidly focused on poverty eradication (PE) or on Natural Resource Management (NRM) with a focus on poverty reduction. For some reason which was not really clarified, the management of genetic resources was largely left out by the participants in their treatment of regional and ecoregional programs.

The main issues in this section of the conference are as follows:

1. Currently, the CG Centers are basically organized on a global basis. Such an approach has contributed to poverty reduction only in certain regions, under certain socioeconomic and institutional contexts, and with respect to specific categories of farmers. Most participants implicitly or explicitly subscribed to the notion that a regional approach is justified to improve the impact of the CG system on poverty reduction in all those cases where the global approach has not worked well. The regional approach may work better in these cases, because it facilitates the integration of research into comprehensive poverty reduction policies and programs. A few reacted to this framework, arguing that the NRM challenge in agriculture needed to respond to a much broader set of issues, including how agriculture affects ecosystems, how agriculture is impacted by the effects of other human activities on the environment, and how new kinds of ecological services can be sustained or enhanced by farming practices and technologies.
2. In different ways, many participants argued that successful regional programs would require to meet the following conditions: a clear and common understanding of the underlying concepts and principles (something that, according to some is still lacking), a clear focus on a limited set of major research problems and opportunities with a strategic dimension, strong scientific leadership, and a proven capacity to articulate and manage effective and cost-efficient collaboration in the research process. Yet, some who shared this point of view recognized that it was not a simple matter to identify major research problems and opportunities that are both relevant to poverty reduction in those cases in which the global approach has not worked well, and that at the same time meet the criteria of involving strategic, international public goods.
3. A major element of the regional approach is the concept of regional partnerships. Most participants agreed that regional approaches and an ability to work through partnerships, are two sides of the same coin. It is recognized by many that the existence and effectiveness of suitable regional partners is an assumption that often cannot be met. Partnerships for

poverty reduction must involve partners with whom the CGIAR has not worked in the past, such as NGOs and farmers' organizations. The perspectives of these new partners are not science-driven or research-focused. In fact, some representatives of major NARS argued that many of them – and the governments of their countries - today are placing a stronger emphasis not on poverty reduction per se, but on growth and competitiveness; this implies that an effort would be necessary to identify the common priorities of CG Centers and NARS, and that it cannot be assumed that there is full agreement between the CGIAR agenda and that of developing countries. Building and managing partnerships with non-CGIAR stakeholders is difficult, expensive and requires specific skills and attitudes that the IARC often do not have. In particular, it was argued that the system of incentives that underlies research priorities and decision-making (at the level of the CG system, of the IARC Boards, of specific programs and of individual scientists) would need to be deeply revised to create an environment that encourages engagement in multi-actor, interdisciplinary partnerships for poverty reduction. Also in relation to this question, the issue was raised that organizing the CGIAR according to a regional approach, would invite national governments to assert control over the policies and programs of the Centers; again, to many this was a major concern, while others see this as a development that should be welcomed.

4. Several participants argued that because of the nature of rural poverty and the kind of policies that are necessary to reduce it, there will be strong pressures for CGIAR research to become more development-oriented. As one participant put it, "for research to be an effective poverty reduction tool, the particular roles, foci and approaches of research must be defined within a broader poverty assessment and structured to fit into a broader poverty reduction strategy... in short, setting research priorities for poverty reduction depends upon broader development strategies and are fundamentally political decisions." However, other participants argued that CGIAR strategic and adaptive research will naturally tend to have faster and more direct benefits for the more affluent farmers of the developing countries, because they command the resources that are required to adopt new technologies. Many participants - in particular those closely related to the CGIAR, including some associated with major donors of the system - see this as an important threat to the essential role of the CG system. Others (e.g., some NGOs and NARS) think this is a necessary shift that needs to be managed and implemented pro-actively. For what purposes and how to manage this research-development interface appears to be an important divisive issue, as was already apparent during the first of this series of electronic conferences.

5. Many participants argued that when the issue is poverty reduction and NRM, participatory research approaches are essential. Research should strive to contribute to supporting and stimulating learning processes and local institutions to manage and sustain them. While participatory approaches are already widely used during on-farm testing and validation, it was argued that they need to be incorporated much earlier in the research process.

6. How to maintain science quality in the regional approach was another issue debated in this part of the conference. Some argued that the new approach should in no way weaken

the well tested conventional criteria and procedures for the evaluation of scientific quality. In the words of one participant, "work that does not meet the statistical standards required for quality research... or fails in design or implementation or reporting so that the appropriate peer group of scientists rejects the work and its conclusions, cannot provide international public goods". Others, however, stated that science quality is not always of direct relevance for many development activities, and that the systems cannot and should not insist on research protocols that are consistent with established scientific practice if they do not help to address specific development issues; as stated in one message: "... the use of participatory methods and tools should help us understand farmers' indigenous knowledge and decision processes, which can help the centers design adoptable technologies which work for farmers... Isn't that the point, rather than science for its own sake."

ALTERNATIVE MODELS FOR THE ORGANIZATION AND MANAGEMENT OF THE CENTERS AND THE CENTRAL BODIES OF THE CGIAR

During the conference, there were several contributions that proposed alternatives for the organization, structure and governance of the IARCs and the central bodies of the CGIAR. Some of these options demand large organizational changes relative to the current CGIAR, while others only involve much smaller adjustments. Some offer an outline for a whole-system restructuring, while others relate to more specific issues or components. In the following pages, these options have been arranged (more or less) according to the degree to which they depart from the current structure, organization and governance of the CGIAR, starting with those that propose the least changes.

1. Think hard before embarking on a reorganization process

Many participants offered a range of arguments urging the CGIAR to rethink its apparent commitment to launching a major restructuring process.

The arguments offered in support of this position included: (a) the danger of political intervention and manipulation by national governments, (b) the advantages of maintaining a sharp focus and a relatively narrow research mandate, (c) the lack of evidence that NRM is or can be the keystone of the Centers' research programs ("too many dimensions means too many uncontrolled variables"), (d) the financial and management strains that would follow from a closer association or involvement in development, (e) the fact that poverty reduction objectives can be achieved by integrating research on NRM with efforts on institutions and organizations, without any need for major structural modifications, (f) major restructuring processes can be disruptive, for example, by stimulating a slowing down of the research process and the loss of well-trained scientists, and (g) in major reorganizations, costs are certain and benefits uncertain, and the CGIAR has not yet done its homework in terms of taking a close look at its own past reorganizational experiences, nor has it involved world-class experts on organizational change to evaluate its current cost structure and incentive systems and the costs and benefits of different alternatives .

2. Collaboration on global programs

This model was submitted institutionally by ICRISAT. Its basic proposition is that the CGIAR should pursue global functions, executed through IARCs deployed with a regional focus.

In a first stage, these functions should only be approached through behavioral change, that is, through closer collaboration between the existing Centers, working together on global programs, and within regional settings.

Structural changes would be left for a second stage, to be implemented in the future if at all necessary. The exception would be the institution of a Future Harvest Executive Director to streamline the CGIAR Secretariat. Its functions would include public awareness, fundraising and supporting common administrative tasks.

Individual IARCs should participate in research on sub-regional agendas. These agendas would be developed in consultative fashion with regional and national organizations.

3. Fully accountable governance and management

This option is based on the model of the Australian Cooperative Research Centre Programme. It was proposed by J. Vercoe.

Global, regional and eco-regional responsibilities should be assigned to the existing Centers. Centers would have to agree on who does what, and from there derive their specific mandates.

Center Boards would be key players in this model, as they would be charged with the responsibility to deliver on the conditions laid out in their mandate. Boards would be legally accountable for the success of their projects organized under their mandate. Boards can delegate responsibilities but not accountability. Board composition would have to reflect the new mandates. Boards would also be legally accountable for maintaining scientific quality.

Projects would be identified through agreements (joint ventures) between Centers and other organizations that can contribute to its objectives. Projects would have managers, who would have the responsibility and authority to identify outputs, assemble resources, set time-frames, and monitor progress. Project managers would report to individuals or groups nominated by the respective Board. All researchers in the project would report to the Project manager, independently of the Center that employs them; the joint venture that generate each project would include specific performance agreements between the staff involved and their legal and project managers.

4. Consolidation into Ecoregional Centers

This model was proposed by A. El-Beltagy. It is proposed that the responsibilities of existing Centers can be restructured and relocated so that the CGIAR can meet the new objectives defined in its Vision 2010.

One Ecoregional Center would be responsible for each of the following five ecoregions: (a) Humid Tropics in Latin America, (b) Humid Tropics in Africa, (c) Humid Tropics and Non-Tropics in Asia, (d) Dry Tropics, and (e) Non-Tropic Dry Areas.

Each Ecoregional Center would serve as hubs for integration of research on GRM and NRM to develop sustainable production systems for target beneficiaries within their respective ecoregion. These Centers would also identify priority areas where rural poverty is concentrated.

Global Centers, organized on a thematic or commodity basis, would also exist. They would contribute their outputs to the Ecoregional Centers, who would be responsible for their integration into sustainable production systems. The research agenda of the Global Centers would be driven by the combined research priorities identified by the Ecoregional Centers. Global Centers would not have sub-centers in any region. In particular, genetic improvement would be a task of the Global Centers according to the commodities with which they work, while the integration of the improved germplasm into sustainable production systems would be the responsibility of the Ecoregional Centers. Currently “orphan” commodities that are of high importance to the poor of any given ecoregion, would have to be “adopted” by that Ecoregional Center.

5. Streamlining the superstructure

P. Sanchez suggest that the goal of the restructuring process should be to transform the system into a streamlined, cost-efficient global research organization. Reducing overhead costs and sharpening the CGIAR’s focus on those areas and functions in which it has a comparative advantage, are two major reasons for this streamlining. The role of the CGIAR is to do research, and as research is only done by the Centers, the restructuring process should aim at allowing them to do their job in the best possible way. Streamlining should focus initially on the CG Secretariat, TAC, Centre Reviews and the way in which the ICW (International Centers’ Week) and the MTM (Mid-Term Meetings) are conducted.

The CG Secretariat should serve the centers and the donors, by supporting the CG Chairman and providing common services to the Centers. It should become a legal entity so that it can deal with IPR issues on behalf of the Centers, and its CEO would be the CGIAR Director. The new entity would absorb the functions of a number of other central bodies. It would not be financed by the World Bank, but by the Centers and by contributions from specific donors. It would be governed by a Board made up of Center directors, donor representatives, eminent persons, and the CG Director.

TAC should be restricted to the function of being a technical advisory committee. CGIAR priorities would originate in the Centers, and be subject to peer review by TAC. TAC would be reduced to a small core staff, and would have to outsource tasks to consultants as needed. TAC would recommend approval or not of Center budgets to the CG members.

Center Reviews should be reviewed, to drastically streamlining them, making them more agile, less costly, less focused on producing thick formal reports and more on sharp follow up.

ICW and MTM. Should be shortened, made more efficient, with more time for multiple bilateral or multilateral meetings as needed (“a marketplace”). Prior documentations should be posted on the web.

In a later message, D. Baker added two more targets for downsizing: Center Boards and the CG-level consultative committees.

6. Programmatic reorganization through inter-Center agreements

This model is outlined in a contribution by H. Zandstra. Programmatic changes lead the reorganization of the system. The model is explicitly offered as an alternative to other options that favor a move towards centralization of structure and governance.

The new CGIAR would recognize global and regional assignments, and central support organizations. Global Programs and Regional Consortia would have their own Boards. Both would draw on capabilities from the Future Harvest Centers, NARS, ARIs, NGOs, the private sector, and regional and international institutions. Future Harvest Centers would disappear as programmatic units, and they would act as participants or conveners of Global Programs and/or Regional Consortia; infrastructures would only be closed down if they turn out to be unnecessary.

The Global Programs may manage activities in several regions using existing CGIAR infrastructure. Seven Global Programs are proposed: Livestock; Cereals; Root, Tubers and Starchy Fruits; Forestry and Trees; Land and Water Resources; Aquatic Resources, and; Policies.

Regional activities respond to regional needs and integrate the CGIAR's Global Programs in the region. They will be the responsibility of Regional Consortia, and could develop activities using infrastructure of several Centers in the region. Staff and programs would be based in the Future Harvest Centers. Four Regional Consortia are proposed: Latin America and the Caribbean; Sub-Saharan Africa; South and Central Asia, and; South East and East Asia. Alternatively Regional Consortia could be developed strictly along clearly demarcated boundaries of poverty regions, to allow the CGIAR to accommodate Western and Northern China, Northeast Brazil, the Andean Region, Central America and many other culturally or ecologically defined regions.

The Central Support Organizations would respond to common needs of the Future Harvest Centers and its donors. They would include the existing Secretariats for TAC and the CGIAR, the Future Harvest Foundation and the AIARC, and could be expanded to include an IPR and biotechnology support unit, as well as others, maintained by the Future Harvest Centers and its donors.

It is argued that inter-center agreements will be largely sufficient to accommodate the proposed programmatic orientations. These inter-center agreements would be approved by TAC and sanctioned by the CGIAR. Creating a brand new structure will not result in large gains in efficiency, since costs are driven by the intensive management needs of multidisciplinary and participatory research. On the contrary, it is argued that the creation of an entirely new structure would be financially demanding and result in large productivity losses for a number of years.

Funding allocations would be the responsibility of the Global Programs and the Regional Consortia and not of the Centers. The Centers would receive funding based on their specific contributions to the Programs and Consortia. The Future Harvest Foundation and other bodies with global responsibilities, such as an institution to deal with IPR and other legal issues, would be fully owned subsidiaries of the Centers, and would receive their funding from them.

7. Single Board for Multiple Centers

M. Iwanaga and J.-P. Jacqmotte proposed variants of a same approach: creating a unified Board that would serve as the BOT of each and all Centers (in Iwanaga's proposal) or of a number of Centers (in Jacqmotte's contribution), as required by each Center's establishment agreement. The Centers remain as independent units, but share a single governance unit.

Such Board or Boards would "think System", as they would look at effectiveness and efficiency across the Centers it oversees, leading gradually to streamlining common functions. Eventually, the Board may decide to merge some or all of the Centers under its responsibility. In Iwanaga's view, this Board would be composed of qualified members serving full-time.

8. Merging or consolidating Centers and programs

D. Baker argued that the concept of ecoregions goes beyond the notion of "agroecological zones" because they include not only biophysical and ecological variables and processes, but also the political, institutional and developmental contexts in which agriculture takes place. For this reason, Centers located in one region cannot effectively act across regions or intervene in global partnerships such as those favored by the CG.

A corollary is that some CG Centers need to be merged into a single institute or consolidated into one single region. Examples would be merging IITA, ICRISAT and WARDA in West Africa, consolidating ICRISAT so that it concentrates in South Asia, and focusing ICRAF's role in East and Southern Africa.

Another area for consolidation is the creation of Global Programs, as suggested by H. Zandstra. This is seen necessary to react to the current fragmentation, duplication and lack of critical mass resources in many areas.

9. Federation of Centers or Unified Center

R. Herdt proposed that decisive changes are necessary to prevent the CGIAR from losing its effectiveness. After discussing other options, he proposed two alternatives: a Federated or a Unified Center. Both of them imply a move towards a more centralized organization, structure and governance system.

In the Unified model all the centers are merged into a single entity, with full and world-wide authority over all areas of management.

In the Federated approach, a Federated Board would be created, and each Center Board would give up certain of its powers and responsibilities. The chief responsibilities of the Federal Board would be in the area of germplasm conservation and IPR. The Center Boards would have to turn over part of their funds to the Federated Board to support its germplasm and IPR responsibilities. The Federated Board may also undertake other functions, such as Future Harvest, public education, fundraising, and perhaps personnel management. The Federated Board would deal directly with private companies and entities like GFAR and the regional fora.

In both models, TAC would continue to be independent and maintain its functions of quality evaluation and advise. Donors would retain their ability to directly fund the research centers. The CG Secretariat would see its financial role greatly reduced.

The transition to the new structure would require a strong donor commitment to “send a message” to the Centers on the necessity of change, and to provide transition funding to the new Board. The Unified or Federated Board would initially be composed of several representatives from each of the Centers, but it would have a fixed time limit to reduce its size. This Board would have the authority for hiring the Executive of the new center. This Executive would be responsible for appointing a Director for each Center site, and for consolidating the system's physical facilities. The new Center would establish legal entities and operating agreements in each country.

10. Multiple organizational responses according to types of research

P. Matlon suggested that the applicability of regional organizational principles should depend on the region-specificity of different types of research.

Regionally-structured Centers would be needed to address problems that exist only or mainly in one region. Such research can be strategic, applied or adaptive.

Regionally-structured Centers, acting in close collaboration with other similar Centers, are applicable when the focus of research is on a particular agroecosystem that is important in more than one region. Again, such research can be strategic, applied or adaptive. Collaboration can take the form of one Center taking the lead on particular problems and sharing results with other interested Centers through cross-center programs. Or expertise from one Center may be outsourced to another one, on a full cost basis. To improve CGIAR performance with this kind of inter-Center collaboration, it would be imperative to generate a new incentive system that precludes competition around mobilizing resources for these initiatives.

Global IARCs are needed to conduct research with broad generic applications across regions and agroecosystems, such as basic research, methodological research and process research. The CGIAR may want to consider locating these global IARCs in an area in a country in the South in which advanced research organizations, small private research firms, and major universities have developed the type of highly symbiotic relationships that are required to conduct the cutting edge science of today.

11. Market-driven organizational change

L. Swindale suggests that the Centers are in fact already experiencing a market-driven reorganization process, simply because some are now receiving funds in excess of their TAC-recommended levels, while others are receiving less.

No Centers should be allowed to exist solely on “formula” funding. All projects should be forced to pay full costs, and Centers that attract funding by using program funds to pay for the indirect costs of project-based funding, should be sanctioned. The Boards of those Centers that are incapable of meeting their funding targets should meet with the Finance Committee to discuss options that would include redirection, consolidation or closure.

Market-driven reorganization would reward flexibility and performance, would allow new areas to be developed by the Centers, and would make the Centers responsible for their own futures.

E. Binenbaum suggests that to reward flexibility and performance, the CGIAR could adopt several principles of for-profit management such as: (a) splitting innovative activities among relatively small divisions (Centers), each of which should have considerable freedom to formulate its own vision. A degree of competition among these divisions should be allowed. Not all units need to subscribe to the same strategy by which the overall organization seeks to reach its grand goals; (b) the central bodies (CGIAR) should rigorously monitor the performance and success of each division, and couple the monitoring and incentive systems.; (c) the central bodies should restrict themselves to

activities that are useful to all divisions and that carry economies of scale. In the case of the CGIAR, these would include some fundraising activities that reinforce those of the divisions (e.g., matching funds), advise on IP, and extending the IARCs network through advise and through monitoring trends on the private and nonprofit agriculture, food and biotech sectors.

Many of the dangers of market-driven change can be anticipated and be dealt with. For example, a fraction of each Center's funding is program based, and incentives can be created to stimulate participation in partnerships.

12. Virtual institutes

This model was proposed by P. Cox. It is based on the notion that each CG Center has in fact several "institutes" embedded in it, each of them responding to different roles: a stewardship role, a research support role for national centers, a research role, and a technology provision role.

Each of these roles has a different set of stakeholders, different implementation procedures, different criteria for evaluation, and different funding sources. The central focus of a reorganization based on this model would be on strengthening the integration between each of these virtual institutes and the particular social structures within which they operate.

These virtual institutes would be sponsored by the CGIAR. Their role would be tightly defined to deal with specific issues relevant to specific groups of stakeholders. They would have a life span limited to the achievement of the objectives for which they were created. They would be delocalized and highly networked, as it would involve multiple links with many organizations. The staff of these institutes would in fact also be members of other organizations, or independent consultants. Their contracts would be much more flexible than today. The overhead costs of these virtual institutes would be lower because of their highly focused roles, because the support staff costs would be covered by the hosting organizations, and because the virtual institute may not require an independent physical location.

13. An experiment on Action-Research Regional Centers

This model was suggested by members of the NGO Committee, in particular M. Altieri. It is suggested that an experiment on regionally organized action-research be started in Latin America, and in particular with CIAT, to test the regional approach and draw lessons that can then be applied to the rest of the CGIAR.

CIAT should become a regional center, working only in Latin America; its work in Asia and Africa would be taken over by IARCs and NARIs in those continents. CIAT would establish strategic alliances with CIP, CATIE, NAROs, NGOs and farmers' organizations, to work in specific countries or inter-country regions characterized by high incidence of

poverty. All institutions committed to poverty reduction in those countries would be able to participate in this alliance.

Work would be based on the principles of agroecology and integrated NRM (INRM). IPR-free biotechnology can be also used if the poor through a participatory approach see any advantage in those innovations.

Research would be based on hundreds of ongoing local initiatives that are already making advances in providing food security and environmental preservation for resource poor farmers in marginal environments. The role of the regionalized CIAT would focus on strategic research, institution-building and policy changes to upscale those ongoing local initiatives.

Other important elements of the NGO Committee general proposals that would be applicable to this experiment, include: To support capacity building at the national level primarily through collaborative research and analysis of experiences and not only through training; genuine collaborative research involves partnerships in all stages of the research process; regional centers should be supported by System-wide programs that address issues to different ecological zones (e.g., water, agrobiodiversity, interdisciplinary methodologies, and participatory research methods), and; the poor and civil society should be deeply involved in all governance functions and bodies.

14. Dissolving the Centers into other organizations

R. Hawkins asked: Why are the Centers still needed? He pointed out at the plethora of research organizations in the North and in the South: private corporations, advanced research institutes, universities, NAROs, NGOs, and many regional, sub-regional, and thematic centers, consortia, and networks.

He suggested that the CGIAR should consider the option of basing many of its programs at the facilities of these other players. Some of this already exists, and the question is if the process should and could be accelerated, with a view at phasing out some or all of the Centers completely, with the probable exception of an independent, international base for genetic resources.

In this view, getting rid of the Centers would allow the CGIAR to concentrate on financing research, improving quality, and directing resources to where they are most needed, perhaps on a more competitive basis.

However, other participants observed that the proposal that centers divest all or part of their mandate commodities to one or more NARS has been considered exhaustively in the past and seriously tried on at least one occasion with “disastrous results.”

CONCLUSIONS

This conference has brought out several dimensions that cut across our thinking about why and how should the structure, organization and governance of the CGIAR be revised. It is apparent that these issues are not limited to questions of management or organizational preferences: they reflect profound differences of opinion about the mission of the CGIAR and the strategies that are required to achieve its goals and objectives.

A first conclusion, then, is that if the CGIAR wants to base its new organization on a broadly shared understanding of what the System is about and what it should be doing in the next ten years, then it needs to spend more time and effort in building that consensus, before moving ahead into the questions of structure, organization and governance.

Of course, given the huge complexities of building such common understanding among the large and diverse number of stakeholders and interested parties, the key players in the CG may well decide that it is better to build a narrow coalition and move ahead come what may, rather than risk paralysis.

This is a truly strategic decision.

Another fundamental question is if the same structure, organization and governance systems can effectively accommodate both Genetic Resource Management and Poverty Reduction and NRM. The variables, stakeholders, trends, determinants, and performance criteria that were relevant to one issue almost disappeared from our dialogue when we moved to the second one, and a largely new set of questions and concerns appeared. Of course, this could be due to how the conference was structured and managed, but perhaps there are real reasons behind this discontinuity.

Deciding on a new structure, organization and governance system for the CGIAR would mean answering questions such as the following, that came out in this conference:

- Decentralization and putting the Centers first, or centralization and putting global entities first? Change at the top to open more space for the Centers, the regions and the ecoregions, or to be able to deal better with global issues that require centralized and global decision-making authority?
- Safeguarding the position of the CG as an institution tightly focused on providing well defined international public goods, with a strong emphasis on basic and strategic research, or moving closer to embedding the CG's functions within broader and more comprehensive development efforts?
- A gradual, evolutionary approach based largely on the present structures and governance systems, or a more radical departure from the status quo and into more modern organizational paradigms?

- Governance changes to facilitate greater involvement and participation in decision-making for a broader set of stakeholders and end users of technology, or a more closed system of governance in which scientists and research administrators hold most of the important cards?
- Structural changes to improving efficiency, or to facilitate programmatic change?
- A process driven by changes in governance and incentives, or by changes in structure and organization?

The “models” offered in the conference on structure, organizations and governance, highlight that many options are possible and available, depending on how the CGIAR answers questions such as those stated above. But perhaps we would all agree that there are many gaps and unanswered questions in each of those propositions. It is obvious that we have not yet reached a point in which these or other models have been carefully and rigorously analyzed. While some may argue that there is no point in detailed discussions of specific alternatives until the major strategic questions have been answered, perhaps what is needed is precisely for more detailed analysis to shed new light into the larger issues.