February 24, 1992

Letter from the CGIAR Chairman

Dear Colleagues:

My previous communication of November 18, 1991 informed you that I had decided to convene a consultation on CGIAR strategy. The consultation was held in London on February 3-5. It was both stimulating and productive.

I should stress, as I did in London, that those of us who took part in the consultation were not acting for or on behalf of the CGIAR or any of its components. Our task was to engage in an exchange of views to provide inputs that could help the system as a whole carry out its strategic responsibilities.

We had a vigorous discussion, in which all participants spoke freely. Walter Falcon, who served as moderator, did an admirable job of keeping the consultation focused on priority issues. The result, as seen in the moderator's summary, is a distillation of views and experience that should serve the system well.

The summary is a highly readable document. I will not pre-empt your responses to it by commenting on its substance. I know you will want to read it in full, and respond in the constructive spirit that characterizes the CGIAR.

I thank Walter Falcon, the participants, and the organizers and resource persons for their collaboration, which contributed to the success of the consultation. Special thanks go to our British colleagues Andrew Bennett and Taff Davies, who provided us with excellent facilities and support.

The next steps are up to the Group as a whole. Walter Falcon will report on the consultation when the topic of Priorities and Strategies is taken up for discussion at the CGIAR mid-term meeting in May. Your responses to the consultation will help the CGIAR system to more effectively address this topic.
Finally, let me say that because the substance of the consultation has far-reaching implications, I will temporarily break with tradition and share this letter with a wider readership than only CGIAR heads of delegation.

Sincerely,

V. Rajagopalan
Chairman

Enc: Letter of Transmittal from Walter Falcon
List of Participants
Summary Report of CGIAR Consultation

TO:

CGIAR Heads of Delegation
Other CGIAR Members
Participants, CGIAR consultation
Center Board Chairs
Center Directors
Regional Representatives
TAC Members
TAC Secretariat
CGIAR Secretariat
Dear Raj:

I am enclosing a copy of the summary report from the London meeting. I regret the delay in getting this material to you, but I have been travelling. To complicate matters further, the document is much longer than I had originally anticipated. This length arises from two sources: a judgment that the wideranging discussion was of excellent quality and needed to be recorded; and, a desire to have a full record for those who could not attend the meeting.

All of use owe a great debt to Don Plucknett who has helped me put this material together. In retrospect, some of the Moderator's summaries are more profound than others! Nevertheless, the report tries to be faithful to what was actually said, not to what might have been said.

I continue to be very pleased overall by the thoughtfulness of the interchanges, and I hope that these notes and summaries do justice to the many valuable comments that were made. If you find serious omissions or commissions, I hope you will write to me.

It was a pleasure to serve as Moderator and I look forward to seeing you again in Istanbul in May.

Cordially,

Wally
I. Opening Remarks - V. Rajagopalan, Chairman, CGIAR

The purposes for the meeting were set out in the program:

- To think creatively about a CGIAR strategy for the 1990s;
- To identify and discuss issues confronting the CGIAR, particularly as they relate to the system's overall role, priorities, structure, financing, and management; and
- To set forth in general terms views about how the system can address these issues over the next decade. The meeting constitutes an input to the ongoing discussions by all participants in the CGIAR on the future of the system.

Mr. Rajagopalan extended a warm welcome to all participants in the meeting and expressed his thanks on behalf of the entire CGIAR for the readiness of all to dedicate time and effort to the future health of the system. He also thanked Dr. Walter Falcon for agreeing to take on the task as Moderator of the Consultation and Mr. Andrew Bennett and his staff for hosting the meeting at ODA.

The chairman then posed some questions and challenges to the group for their consideration during the Consultation.

- Does a need still exist for the CGIAR? The answer is YES, but--
  - The world has changed for the donors, even for scientists;
  - The CGIAR needs to move on its expansion effort and complete the process; it desperately needs to catch its breath and then get on with the basic business of doing research;
  - The priorities exercise needs to move forward;
  - The CGIAR needs to look at options on structures, balance of programs, and resources.
He then voiced some personal concerns:

- Is the system's productivity being protected?
- Are resources being spread too thinly?
- Is the CGIAR endangering critical mass in restructuring and reorganizing the system?

He then posed some basic questions:

- What problems are most important?
- Of these important problems, which will respond to research?
- Of those that will respond, which are suited for international research efforts?
- Of those suited for international research, which are most suited for CGIAR research?

Scope and Groundrules for the Consultation:

Mr. Rajagopalan emphasized the Consultation was part of an ongoing process, to help in achieving several purposes:

- To help the Group in its decisions at the next meeting in Istanbul in May, 1992,
- To help TAC in its work on priorities and strategies, and
- To discuss the substance of the details of strategy formulation.

He then laid down the following groundrules and follow-up steps:

- The Consultation is not an executive committee; each person is here in a personal capacity.
- An open, transparent process is essential, so the meeting will be followed up with a Chairman's letter and report.
- Wisdom, good humor, and humility are needed.
- Dr. Falcon, the Moderator of the Consultation, will put out an informal synthesis report. Dr. Falcon will also report to the CGIAR at Istanbul in May, 1992.
II. The Moderator

Dr. Walter Falcon took the chair as Moderator of the Consultation. He stressed there should be no long set speeches, that informal interactive discussions were needed, and that his role was to draw useful ideas from the group.

The Moderator then asked five questions, emphasizing the need to make sure the right questions were asked and discussed during the consultation:

1. A vision for the future
   - How important will agriculture be for the next 20 years?
   - How important will demand versus supply be, both for food as well as for technology and ideas?
   - How compatible are sustainability, productivity, and future food needs?

2. Comparative advantage of the CGIAR
   - What can CGIAR do best?
   - What are key links to NARS and the private sector?

3. Who does what?
   - Is the ecoregional concept too abstract? Will it work in practice? Which regions?
   - Need for centers, in particular; but which ones and what for?

4. Funding
   - How serious is the supply problem for funds?
   - The last round of funding decisions left much to be desired; can the system do better in the next round of planning?
   - How secure is the World Bank's role as donor of last resort?

5. Organization
   - Is another system review needed?
Are components of the system doing their jobs?

Does the Group need an executive body other than those now existing?

III. The Consultation Discussions and This Report

Discussions were held on a number of subjects, each of which are reported as directly as possible in the pages that follow. The procedure that has been chosen in reporting is to give an overview in as direct a manner as possible of the thoughts, ideas and arguments that came forward. The discussions that follow are reported largely in the order they resulted, and many of the thoughts are presented essentially in the words that were used. The Moderator has made every effort to avoid putting his own interpretation on the discussion summary.

The discussion summary is then followed by the Moderator's summation. In cases where the Moderator summarized a preceding day's discussions, a few additional thoughts were added. These too have been incorporated as part of the summation for that subject. Since this was not a decision-making session and no formal consensus was reached, this document is intended only as an informational report.

A. NEED FOR, AND VISION FOR, THE CGIAR SYSTEM

The need for the system was supported very strongly. Arguments included the need for increased food supplies for an estimated 90 million new persons each year. A World Bank study of the future food situation concluded there would be a 2.6 to 2.7 percent increase in demand for basic foods each year for the next 40 years. Expansion of cultivated area, which has been the main source of agricultural growth throughout most of the history of mankind, has about run its course. Hence, most gains in the future must come from increased productivity per unit of land. This will require increased knowledge and new technologies; therefore, the case for agricultural research in the future is strong indeed.

Productivity gains per unit of land have been especially impressive since World War II. Wheat yield increases have ranged from 4-5 kg/ha/yr in the United States and United Kingdom up to about 1950, to some 50 and 70 kg/ha/yr in the years since, an indication of a so-called "yield takeoff". This, and similar results obtained in developing countries, are firm indicators of the benefits of research and the type of productivity gains that have been possible during the past three or four decades, the period of greatest agricultural productivity growth in history. Such gains would not have been possible without agricultural research, and future gains will also depend on an increased knowledge base derived from research.
Concern was expressed regarding yield stagnation and even yield declines, especially for rice in Asia. Yield potential in most crops, but especially in rice, was considered an important global research need. Also, resource degradation was identified as an emerging problem. It was argued that the CGIAR has done much more work on natural resource management in the past than it has been given credit for. What is needed now, it was said, was for the CGIAR to combine research on crop and livestock productivity with research on natural resource management.

The differences among crops in potential productivity advances were mentioned, especially the large differences between cereals and crops which have received less research, such as the grain legumes and root crops.

There was agreement that the CGIAR should not seek in words or actions a tradeoff between productivity and natural resource management; what is wanted is good research on both of these within a framework of production systems.

Concern was expressed that the system cannot do all things, including natural resource management, germplasm enhancement or improvement of important commodities, policy research, etc., and that clear, attainable priorities must be established.

Emerging partnerships with NARS were mentioned as a major means for carrying out CGIAR work.

Some misunderstanding of the CGIAR and its efforts has arisen because the story of the CGIAR has not been told as well as it could be. Part of the lack of understanding of the CGIAR probably comes about because many people in developed countries know so little about where their food comes from.

Some participants believed that linking research and development was essential for broader support. Hard economic assessments of research products are essential. Impact evaluations are necessary to help donors understand the contributions research can make. Many current donor attitudes emphasize short-term rather than longer-term considerations. The question must be answered, does the CGIAR give value for money? As global food security appears, in the mind of some, to have been attained, will donors give more attention to their own national agendas? There is also an increasing tendency to "buy" a known product from a CGIAR center, sometimes even with a national flag on it. In other words, special project funding is appealing to some donors.

Most of the participants present at the Consultation agreed that increased funding for the CGIAR is unlikely unless a global food problem appears likely. At least, it will be necessary to convince people that a global food crisis is possible.
Concern was expressed by several speakers on what they perceived to be a weakening of support for the CGIAR by developing countries. If true, why would this be so? Is it fashionable for developing countries to question the CGIAR effort? Do some developing countries feel a sense of competition with the CGIAR centers?

It was asked whether the CGIAR is too comfortable, too clubby to respond effectively to needs. One speaker emphasized the CGIAR is a dynamic system that has responded, and is responding, to external changes and pressures.

IARCs should emphasize strategic research, aimed at poverty alleviation on a global scale.

Moderator’s Summation on NEED AND VISION FOR THE CGIAR

- There was unanimous agreement about the continuing need for the CGIAR and the research and related services that it provides. The system is not outdated, nor is its work outmoded.

- There was general agreement that the CGIAR is on a dynamic path, and that it is the right one. The system is evolving, and its evolutionary character is, in general, healthy.

- There was no call for a new or revised mission statement for the CGIAR.

- The centrality of germplasm as a global issue and organizing activity was reaffirmed.

- Regarding natural resource research and sustainability, it seems essential the CGIAR should be more involved and concerned.

- Knowledge and new technology are two of the best ways to solve many problems facing agriculture, especially agriculture in developing countries, where the knowledge base for agricultural development is often limited.

- The CGIAR clearly can and does play a bridging role between developing countries and advanced laboratories and institutions, especially for scientific advances and for technology transfer.

- There are a number of pressing international problems that can be solved only with strategic, or upstream, research. Caution was expressed, however, that the centers should be careful to avoid duplication of
research done by advanced laboratories. Also, some fear was expressed that moving upstream in research might pull the CGIAR away from some of its close relationships with NARS and serving the needs of poor people.

- The CGIAR story has not been told well enough, especially the accomplishments of the system, and the hard facts of the benefits derived from the system, especially the benefits derived from the system by individual National Agricultural Research Systems (NARS).

- Two suggestions were given for action; tell the impact story better, and priority setting should help get ideas on major needs and directions higher on political agendas.

- A change in organizational form is needed; from a donor/client relationship to a partnership of users.

- Absent a food crisis, funding increases will not come easily.

- The CGIAR must be clear and careful about its priorities and strategies and about the programs that it supports.

- The Consultation indicated a strong supply-side orientation for the CGIAR was probably sound for the next 20 years.

- Regarding technical assistance by the IARCs, the message from the discussions was mixed, but the warnings to be careful as to direction and scope of technical assistance were quite clear.

B. IMPLICATIONS OF THE CHANGES IN EASTERN EUROPE AND THE FORMER SOVIET UNION

It was generally agreed that changes in Eastern Europe would have an effect on the CGIAR. It is possible that former communist countries could either become members of the CGIAR, or, more likely, become direct constituents and beneficiaries of the system and its research. There was general agreement that the demands on the system from Eastern Europe could be considerable. The consultation was reminded that the centers are already involved to a considerable extent with many of the countries in question. One suggestion was that these countries should be sought as members, not just as donors of funds but also as sources of scientific talent.
Reports from the region indicate that agricultural scientists may be the first to lose their jobs in the current difficulties, mostly because of the collapse of the ministries that employ them. Most scientists want very much to remain scientists, and many keenly desire collaboration and access to advanced research equipment.

It was also generally agreed that donor interest in Eastern Europe might affect donor interest in other countries and regions. If this happens, it appears Africa may well be one of the biggest losers among the continents.

Moderator’s Summation on EASTERN EUROPE AND THE FORMER SOVIET UNION

• The CGIAR has not thought much about its relationships with Eastern Europe; it appears it is time to do so.

• There may be some possibility that because of the number of well-trained, educated people available, Eastern Europe may well respond rather quickly and effectively to outside help.

• It is obvious that several CGIAR centers are already involved in research and collaboration with Eastern European countries.

• There is likely to be significant competition for funds for Eastern Europe with other regions and countries.

• The Consultation essentially agreed the watchword should be go slow in Eastern Europe, both as regards the roles of countries there either as donors or recipients and beneficiaries. Any efforts need considerable structure and thought, because Eastern Europe could become a vast user of CGIAR resources and funds.

• It was suggested that while Eastern Europe goes on about the useful process of getting rid of "dead wood" in its scientific ranks, that something should be done to save the "green wood" needed for necessary future scientific work.

• It was generally agreed that Eastern Europe and the Commonwealth of Independent States were probably strategic issues for the CGIAR, both now and in the future. It was believed most countries of the region will be involved more fully with the CGIAR in the future; some will be clients, some may be donors.
C. THE GLOBAL AGRICULTURAL RESEARCH SYSTEM

A significant development since World War II has been the development of the global agricultural research system. An informal effort which was not planned nor designed, the global agricultural research system has emerged from perceived shared needs, needs that can be worked on best by interested nations, both developing and developed, and their partners in the international agricultural research centers. The CGIAR has been an important partner in the development of the global system, which today is probably the world’s largest and most extensive scientific enterprise.

Several suggestions were made to improve the global system. One suggestion was that, since every nation and research partner has something to gain from cooperation in research, agricultural ministries or agencies of each interested nation should eventually compose the policymaking and support system for the CGIAR. This could mean the CGIAR would be less of a donor-supported system and that it would be less dependent on international foreign aid sources for funding. Rather, the CGIAR would instead become a member-funded system. This concept was worrisome for some participants who were not optimistic about support for international research being made available by agencies primarily responsible for domestic agricultural research and development. Hope was expressed by one person that development assistance agencies over time would be transmuted into international development cooperation agencies. This would ensure international perspective as well as self interest of nations. However, the need for caution was emphasized to prevent the CGIAR from being pressed to do more on poverty, equity, or other developmental concerns in ways for which the CGIAR has little or no comparative advantage.

One point raised in this discussion was the idea that the CGIAR should provide a broader forum for discussion of international agricultural concerns that go beyond the direct programs supported by the CGIAR through center research. One speaker strongly supported this "global forum" role, in which agricultural problems in developing countries as well as other global food and agriculture issues could be discussed. Today, the CGIAR is considered more as a closely focused research organization rather than the broader global forum some persons favor.

Moderator’s Summation on THE GLOBAL AGRICULTURAL RESEARCH SYSTEM

- Problem-solving within a global framework presents increased opportunities for participation and benefits for all countries.
• It is obvious that the CGIAR has made a significant contribution to the development and work of the global system.

• While there was some interest in working toward a member-or user-led CGIAR, there was not much enthusiasm shown by the Consultation for seeking major support for the CGIAR over the longer term from ministries or agencies responsible for domestic agricultural research and development.

• There was considerable interest shown in ensuring that the vision of NARS was reflected in governance processes of the CGIAR, including setting priorities, finance and governance decisions, and in operational efforts.

• The CGIAR should be transformed from a have/have not, donor/reipient effort to a longer-term effort that involves strong self interest, that reflects the worth of the CGIAR as "an international public good" and an impartial global forum for agriculture.

D. LIVESTOCK RESEARCH

The direction and future of livestock research was discussed. Several questions were asked: where is the yield gap in livestock and what are its causes; what is the potential of livestock; is there a current balance in livestock research between husbandry and animal disease; is the CGIAR effort too restricted in species coverage; and does it make sense for the CGIAR effort in livestock to be focused so heavily on Africa?

Livestock research is often fragmented, and location-specific in nature. Research linkages are needed, probably through networks. Perhaps CGIAR research should be tied to good developing country research centers.

Two categories of livestock were defined: (1) cattle and other ruminants, where high fiber feeds or pasture or forage crops are consumed, but where often some production systems are near or exceed the limits of sustainability; and (2) swine and poultry, which consume feeds that could be used directly for human food. There appears to be considerable demand for livestock products. Ruminant production is often the only option for use of some marginal lands. Animals comprise an important means of recycling crop residues and wastes.

In Africa, especially, it is difficult to see how farming can be intensified without livestock, even though animals can compete directly with humans for land and grains. Hand cultivation is the only alternative to livestock involvement in
African production systems; this is not an attractive option. Often, what is needed is research on livestock policy.

The suggestion was made that, since gains from investment can be captured readily by the private sector from swine and poultry, the CGIAR should stay out of swine and poultry research. A point was made that the largest increase in livestock production in developing countries is in intensive poultry production.

One speaker stressed that the cost per unit of advance from livestock research is larger than in crops research. Opportunities in trypanotolerance were mentioned as one possibility for continued CGIAR support.

Moderator’s Summation on LIVESTOCK RESEARCH

- There appeared to be a consensus that research on diseases and management of production systems should be brought closer together.
- In many cases, adequate feed may be the most pressing livestock problem in developing countries.
- Use of networks may be a good way to carry out livestock research in developing countries.
- The CGIAR should give another look at its possible comparative advantage in livestock research.
- Production systems research is needed, especially to look at problems of productivity and sustainability.
- The overall consensus of the discussions seemed to be: go slow on livestock, perhaps combining the disease and production work on ruminants and adding dairy as a network activity.

E. GERmplASM CONSERVATION AND RESEARCH

CGIAR successes in plant germplasm, particularly of crops, are large, impressive and clear, and the role of the CGIAR in germplasm work is clearcut and unarguable. One question the system must now face is how much and what kind of germplasm effort by the CGIAR should be done and how much should be done by the NARS. What does the system do with countries that, for whatever reason, cannot do science; how does the system work with them and serve their needs? Do some countries act as "cargo cults" regarding germplasm, where they sit and wait for products or results of others to be supplied to them?
Routine development of germplasm lines by CGIAR centers is probably no longer appropriate. Strategic (upstream) research is needed to work on difficult genetic characters, difficult genes, difficult pests or diseases, etc. Centers are good at application of existing knowledge, but generally should not be involved in basic research. Rather they should be ready and able to find ways to apply basic knowledge to solve important problems.

New technologies from genetic engineering and biotechnology have reached a state of knowledge that can be applied. For example, virus resistance research has produced new knowledge that will augment existing germplasm efforts. It is crucial for the developing countries that such advanced scientific work should be taken up by the IARCs, for the benefit of the developing countries. In this way, the IARCs play a kind of bridging role. Creation of new knowledge should, in many cases, be within the province of the biotechnology laboratories. Beyond those laboratories, where basic research is carried out, there is a continuum of effort that requires different institutions; some of those institutions will be the international centers. What will or should be the division of labor regarding this work?

Given the CGIAR's clear comparative advantage in germplasm work, is it possible IARCs may stifle investment in germplasm research by NARS? There is also the issue of critical minimum mass of scientific talent in research that must be considered, both by the IARCs and the NARS. If tailoring or exploitation of critical germplasm are needed to serve NARS better, then larger staffs will probably be required at the IARCs. Countries need to be able to use germplasm well, but how many scientists are needed to do this at national level?

The CGIAR should not and cannot seek scientific imperialism, where donors or the IARCs or others decide what a NARS should do in any division of labor. What is needed are partnerships. It is necessary to recognize that there is, and will be, a gradation of scientific capability in developing countries in relevant fields affecting germplasm research. For some crops, notably those sometimes designated as orphan crops, donors could purchase technology on behalf of a developing country to solve a unique, pressing problem.

There is a continuing need for the IARCs to train developing country scientists in germplasm research. To make this effective, there is a need for funding at local levels to ensure good utilization of trained people. The weakest points in the global system of germplasm conservation and utilization are still found at national levels in many developing countries. There is, however, a need for recipient countries to commit themselves to the effort and make contributions of their own. Here the concept of G.I.F.T.S., which arose from the Keystone International
Dialogue Series on Plant Genetic Resources, was introduced as a means of identifying contributions to germplasm work. In this concept G. stands for germplasm, I. for information, F. for funds, T. for Technology, and S. for systems management. In this concept each country would have something to contribute, in a system based on cooperation, but with a clear understanding that self interest was a proper motivation for involvement. One speaker mentioned here the need to let those do the job who will do it best. Perhaps the IARCs should take in more young scientists from advanced laboratories to work on important germplasm problems. This was seen as advantageous since the IARCs are places where people come together to solve important problems.

Since the basic comparative advantage and core competence of the IARCs clearly remains in germplasm, one speaker thought this had several implications: (1) perhaps smaller centers in future; (2) perhaps different types of networks with NARS; (3) perhaps more funds should be put into the "supermarket" aspects of providing an array of evaluated germplasm to the "customers", the NARS, and let the customer tell the IARCs what they want; (4) while the international system needs to be sustained, the customer also has to be able to go shopping for germplasm in an informed, effective manner; and (5) perhaps donors may need to provide funds to the NARS to make sure they can get more products from the supermarket shelf. Improvement of universities in developing countries was mentioned as one way to help improve agricultural research.

Moderator's Summation on GERMPLASM CONSERVATION AND RESEARCH

- The CGIAR has a clear international comparative advantage in germplasm conservation and improvement, and a sharp focus on such work should be maintained.

- The questions are: how far upstream or downstream should this research go, and what kind of science is required? How will the mix of upstream and downstream research be determined? The general consensus of this Consultation was that more upstream research is needed, but this should be mostly strategic in nature, and not "blue sky" research.

- NARS in most cases cannot take over the (large) germplasm role, but there is a national interest that can be served by wider partnerships within the global system.

- Too much emphasis by donors on farmer-relevance can confuse the necessary upstream research effort in germplasm.
New technologies derived from basic research in most cases will not be developed at the centers, being more properly the role of advanced laboratories, however the centers must be able to use advances from basic research to provide improved parental materials to NARS.

Centers need to demonstrate impact better, by improved reporting of training at different levels as well as direct or indirect impacts of germplasm materials.

F. NATURAL RESOURCE MANAGEMENT RESEARCH

There was general agreement that the CGIAR needed to do more in natural resource management research, although some persons thought the IARCs had done more in this area than they were being given credit for. It was suggested the present concept of the system in this regard was continuing to broaden the genetic base for crop production in particular, while managing and protecting the production environment.

The challenge of meeting food production needs at a time of constantly rising populations and consequent pressures on the environment was emphasized. Germplasm development can help in this regard, but by itself, can put more pressures on the production environment and the surrounding lands. The CGIAR role here was seen by one speaker as generating knowledge that will help to buffer potential and actual damage to the environment. Crop management research in this case was seen as not integrated enough into the total production system. National programs can play major roles in crop management research, while IARCs can play a role in developing technology for specific farming systems components. There needs to be consortia of watershed research systems, within which strategic research can be carried out. Within these consortia, to the extent possible, the CGIAR would want to capture economies of scale.

The CGIAR needs to identify problems, set priorities among them, and then lay out a comprehensive plan of research. That has not been done. Such an effort cannot be done just by the IARCs or TAC; a much broader problem identification effort is required. Considerable strategic research in natural resource management is needed, and it shouldn't be only biological research.

Sustainability will not be possible unless there also is productivity. Natural resources must be managed in such a way that local communities benefit from them; this is a major policy problem. The challenge for developing countries is that until better understanding of sustainability exists, developing countries will have to continue using natural resources more widely.
It is hard to identify a natural resource management comparative advantage for the CGIAR. The IARCs must work closely with others in this work. There is a wide array of problems. There may be three levels of research activities to consider in determining comparative advantage for the CGIAR: (1) land use, land use systems, conceptual frameworks, methods; (2) management of land, soils, water, etc.; here there are many questions, many concerns; and (3) social and policy aspects. The CGIAR has done quite well in integrating biological sciences and social sciences; this was seen as a comparative advantage.

Are some CGIAR centers too specialized, e.g., irrigation management, acid soils, shifting cultivation, etc., to be effective without a lot more coordination and cooperation?

Many groups are wrestling with comparative advantage in natural resource management. It would seem the CGIAR has some comparative advantage in natural resource management relating to specific commodities. Diagnosing natural resource management problems worldwide would appear to be well beyond the CGIAR's capabilities.

Comparative advantage in natural resource management research is closely related to the state of science in the field. Much remains to be done; the state of science problem is not just a CGIAR problem, and many more players are needed. The CGIAR does have an opportunity to be a conceptual innovator in natural resource management research. The CGIAR could start by identifying some basic problems not well understood, e.g., soil processes, water management, etc.

TAC has tried to illustrate the kinds of activities in which the CGIAR could be involved, e.g., clearly international, and an area where NARS are not likely to become involved. In future, TAC needs more examples of appropriate activities, using a bottom-up approach.

The CGIAR must come to grips with systems that are both productive and sustainable.

Moderator's Summation on NATURAL RESOURCES AND SUSTAINABILITY

- A focus on sustainability is essential for the CGIAR, for substantive, financial and political reasons.
- The CGIAR is not sustainable itself without a joint focus on productivity and conservation of resources.
- The state of science is poor with respect to knowledge about soil, water, nutrient, and land-use issues in the tropics.
Much work remains to be done in specifying high-priority strategic research related to natural resource issues, and especially research on the intersection between production and resource questions.

The CGIAR must search for those issues that are truly strategic and should avoid those resource issues that are primarily location specific.

Above all, the CGIAR must find a balance between productivity and resource orientations. A concentration on sustainability without reference to productivity is as irrelevant as a focus on self-sufficiency without reference to prices.

G. POLICY RESEARCH

Policy research was seen as necessary, but the amount and scope of such research was questioned. In particular, the measurement of impact of policy research was raised. The point was made that a particular policy research finding may be correct, but that it may have no immediate impact.

It was emphasized there are three approaches to policy work; the heavy hand, the helping hand, and the invisible hand. The helping or invisible hands were favored.

It was stated that the list of possible areas of policy research in the CGIAR is necessarily very restricted. Someone questioned what constitutes strategic research in policy? Poverty, global and regional concerns and demand/supply were given as examples. Is there a continuing, transnational research role in policy? Do transnational issues like trade, policy, aid, etc. fit? Methods to do quality policy analysis using constrained data sets were given as examples of a possible CGIAR role. Some possible topics: common property, public goods, natural resource management.

Reasons for poverty in rural areas, especially in Africa, were given as possible topics for policy analysis: why farmers do not adopt new technology, why farmers compromise their production environment, and why food security is not secured.

ISNAR studies on operation of national research systems was commended. Can ISNAR link up on policy research in matters such as natural resource management and technology transfer?

The Moderator's Summation on POLICY RESEARCH

- There is a continuing need for an impartial forum for work in this area, but a sharp focus is needed, to keep policy work within reasonable bounds.
Policy work in the absence of good science is probably dangerous, while applied biological research without good policy analysis may be irrelevant. The CGIAR is well positioned to "marry" scientific and policy discussions.

A reasonable focus for the CGIAR in policy might include: (1) transnational issues, both global and regional, involving trade, and aid; (2) methods, including rapid analyses, impact analyses, and the intersection of policy and natural resources, (3) public goods, and (4) consumption and demand studies.

The demand perspective of IFPRI has been useful and helpful, especially given the overwhelmingly strong supply orientation of the rest of the system.

Strategic research in policy is needed, but there is not yet agreement on what it is. Poverty, global and environmental concerns, and demand/supply are some possible areas of emphasis.

Can policy research help us to find a better interface between production and environment?

What will be the role of ecoregional centers in policy research?

Some cautions: CGIAR should not claim too much in impact analyses, danger of becoming too political (helping hand or invisible hand approaches are needed); must remember policy research is not done only at IFPRI and ISNAR, other centers are also involved; CGIAR needs to determine where "management science" comes into policy work; CGIAR policy studies should probably not deal too much with particular country problems.

H. INFORMATION

There are tremendous developments underway regarding handling and transmitting of information. It is difficult to conceive how to tap into data bases effectively. Certainly the CGIAR cannot do basic research in information. It is important to remember information is a process in most cases, not an output. Some concern was expressed that the CGIAR might get left behind. The statement was made, "we cannot do first-rate science with third-rate information".

As a publicly funded organization, the CGIAR has special responsibilities in information. What constitutes information? Early warning systems including market information, pest management concerns, and food security concerns as well as other
topics such as agricultural statistics, geographic information and natural resources were suggested as possible topics. Various databases were seen as necessary to CGIAR efforts.

It was pointed out the CGIAR is essentially an information-intensive system. CGIAR must have access to information of global importance, but it is difficult to find out what others are doing. Currently, some 5 percent of CGIAR funds go to information activities. What, if any, areas of comparative advantage exist for information in the CGIAR? A possible list was given: (1) germplasm information; (2) ecoregional data; (3) helping developing countries to link into existing data system; and (4) information activities for donors.

Moderator's Summation on INFORMATION

- There is no question about the need for the CGIAR to be involved in information activities.
- Information in the CGIAR is primarily a support system, and not an end in itself.
- To serve its own needs, especially in germplasm and natural resource management, CGIAR must tap into its own data bases as well as those of others.
- What is the optimal degree of decentralization possible in information systems? There is no agreement yet.
- The system needs to obtain help from outside in key areas, perhaps even from the reservation section of a major airline.
- Some concern was expressed that dissemination of CGIAR materials might not be doing well in reaching targeted audiences.
- For printed information from the system itself, the CGIAR should determine target audiences, and the amount and direction of flow (is the flow too great in some situations?). Is there a need for greater synthesis of information (i.e., too much information not in digestible form), and public awareness needs?
- The system is not as far along on data handling as it might be.

I. LINKAGES, RELATIONSHIPS WITH NARS

CGIAR relationships with NARS have been a perennial topic for discussion. The question was asked, how can centers forge linkages with NARS in an imperfect world? What is a NARS? Is it
the whole system or just those institutions managed by the government? Earlier, it was relatively easy to find out what was going on in a country. Today, the private sector is much more involved, as are universities. How can they be fitted in? What constitutes an "ideal" NARS? How does a NARS spell out what it needs and wants? What is the role of the CGIAR in all of this?

Perhaps the biggest question facing the CGIAR is the role of the CGIAR centers in strengthening NARS. The CGIAR has struggled with this question since it was established. Some people seem to want to hold the CGIAR responsible for strengthening NARS, in the large, while others say the CGIAR centers can help to strengthen cells or parts of a NARS but not the whole system.

There is a threat to the CGIAR if NARS, who are today the main customers in the global continuum of research and development, are not well defined and understood. One speaker stated the IARCs will have no scientific future unless a more complete concept of NARS, and not just developing country NARS, is understood, and collaborative plans are made more operational. Scientific leadership is important here, where new knowledge and new materials are the real determinants that influence demand for the work of the IARCs. Part of that scientific leadership issue requires that excellence and achievement are recognized and rewarded.

In relative terms, the CGIAR centers are rich and many NARS are poor, leading in some cases to a feeling of competition between them for resources and support. NARS sometimes appear reluctant to encourage donors to support the IARCs and the research products and services they receive. The NARS are often the "disadvantaged cousins", and lack resources to make collaboration with IARCs meaningful.

There is no doubt that the CGIAR centers need to work closely with NARS in partnership relationships to carry out collaborative research, conduct training, exchange information and materials, etc. But how to do it is the question. There may be two models to do this: (1) the Task Force Model - at the country level, get national people together with IARC staff to decide what to do; and (2) the combined demand/supply model - here the IARCs are supported with core multilateral funds at the international level to ensure supply of new relevant technologies, while NARS are supported bilaterally, to ensure a strong demand system. One speaker said only the World Bank has the capacity to carry out that role, which is wider than the commodity approach being used. The need for someone to play a catalytic role here was emphasized, a role similar to that played by the Ford and Rockefeller Foundations earlier. Another speaker suggested that regional development banks could play some such catalytic role in their respective regions, especially on those problems that clearly are region-specific.
Donor funds could go to NARS or to regional entities to help support activities in the IARCs that could be involved. How could such regional efforts be made to work? An example was given in which an agreement was reached between relevant nations to draft a regional program in which IARCs could participate as needed.

The CGIAR should be complementary to NARS and must be prepared to deal with changing relationships. Much strategic research is supernational or transnational in character and is suited for CGIAR attention. The substance of linkages between IARCs and NARS is commonality of interest and purpose.

Heterogeneity of NARS presents special problems and challenges for CGIAR centers because no single strategy can be used. Some persons consider some form of stratification of NARS according to strength or capacity is needed, in order to delineate more clearly the strategies to work more effectively with them. After stratification, the centers can then work on a comparative advantage basis with NARS, sharing or dividing responsibilities according to comparative strengths. In many cases such sharing of responsibilities may also require a sharing of resources to make the partnership possible. Caution was raised here, though, that such an approach might move the centers very close to a kind of donor relationship with NARS, a move that many consider inappropriate.

There was considerable concern expressed about the need to discuss and understand national needs and national capacities more rationally and effectively. Who should lead this effort? Is there any way it can be discussed and dealt with openly, or is it just too sensitive a subject for open debate?

More than one person raised the question of whether the CGIAR had any comparative advantage in institution building in NARS. One reply was that the centers contribute to institution building through: (1) training; (2) networks; and (3) collaborative research, etc. Concern was expressed that the CGIAR must find ways to take institution building pressures off the centers. It was clearly recognized that what is needed are stronger NARS to help them become better and more effective partners in the global research effort to improve agriculture in the poorer countries. But the CGIAR is not always sure what constitutes a NARS. For example, irrigation which is so important to agriculture is often not even a part of the agriculture ministry of countries nor of the NARS as they are usually discussed or defined.

One person stated that most institution building should be done outside the CGIAR system. Another speaker suggested the IARCs could play a catalytic role in strengthening of NARS, but that core funds should not be used for such purposes. It was
pointed out that institution building can begin even when linkages are not yet well formed, e.g., IITA was able to build cassava research capacity in Africa before some NARS were strengthened.

One developing country participant suggested that the regional grouping of NARS is likely to be a reasonable way of working with the CGIAR centers. Resource management research was one area singled out as needing mechanisms for cooperation and institution building. Regional linkages need coherence and effective coordination. This could help ensure that regional plans could be made to help centers find a reasonable working role with NARS.

The idea of developing a forum for discussion of NARS needs received considerable attention. One idea was that donors, IARCs, and NARS need a forum (e.g., SPAAR?) for discussion and planning; could or should donors take the lead on this? Also, a focus on country-driven efforts is needed, building `round tables' or consultative groups at the national level. Such an effort might take ten years to develop a national focal point and to ensure continuity.

It was suggested that awareness of the need to work more closely with NARS is present in most IARCs, but the commitment of IARCs to work more closely may not be as obvious. Strategies to improve linkages require more than setting of priorities. The IARCs need help in developing a full array of possible linkages. The idea of incentive-compatible institutions was suggested as a concept to get relationships to operate better.

Considerable discussion ensued about the role of donors in furthering linkages and strengthening NARS. Some donors are interested in institution building, while most donors are interested in strengthening linkages. Some donors appear to be willing to support regional groupings of countries to further cooperation, and even to support a Secretariat to further such work. NARS are trying to get organized and work together more effectively, with donor support. Support to NARS should be based on an agenda and an action plan. Where NARS want something from the IARCs, bilateral donor funding can be helpful. Donors often have very different objectives from NARS, and donor coordination is not easy, especially where NARS are not given enough opportunity or time to say what they want. The question of handling funds was raised -- who holds, who controls, etc. Bilateral funding is needed, but in a partnership framework.

One donor told of a concerted effort to strengthen NARS bilaterally, in a demand-driven effort. They found the effort was time-consuming, requiring at least a 10-year basis of support, involving well-defined problems and focused programs, in a truly collaborative mode of operation. NARS were encouraged to
collaborate closely with IARCs, but this idea was not welcomed because the IARCs were viewed as too dominant and the effort was seen as too expensive. The approach was long term in nature, with small amounts of money. Questions that arose included: (1) who decides at the national level on the kind of system to build? [The general answer was that, in most cases, the donors decide]; (2) how does the CGIAR get around a project versus a program approach to institution building using donor funds; (3) what should be the role of the IARCs in such an effort [germplasm, information, training, policy research were given as examples]; (4) what is the proper forum for discussion at national levels in such institution-building efforts [how? who? when? etc.]; and (5) who knows which centers are working in a given country?

Some thoughts were expressed on problems that the Special Program for African Agricultural Research (SPAAR) has had, including: (1) lack of donor coordination; (2) a limited concept of what constitutes a NARS -- did not include universities, private sector, etc.; and (3) perhaps an idealized view of NARS versus the reality of NARS and their basic weaknesses.

Coordination of country efforts should be at the country level. How, under these conditions, does an international effort like the CGIAR serve individual countries effectively? Also, the IARCs seem at times to need teams to work in specific NARS; can this be done by working with contracted teams from that country instead of using expatriates?

Networking was mentioned several times as one way to improve linkages. It was stated that centers often want to control networks, and that leadership in scientific networks often means leadership by the centers. Also, as centers move more into strategic research, an assumption is that NARS will be able to handle a larger applied research role, probably mostly through networks. Most developing countries have problems finding operating funds; funding of networks is needed, especially to help NARS carry on leadership and/or cooperative efforts. An inter-institutional approach is essential. Research consortia, which may be considered as more formally-structured networks, are increasingly being suggested as a means for cooperation. Effective coordination mechanisms are needed for networks.

A suggestion was made that core funding for centers should concentrate on genuinely international agricultural research, while institution building should be supported through bilateral funding.

Moderator’s Summation of LINKAGES AND RELATIONSHIPS WITH NARS

- NARS/IARC working relationship is perhaps the area of effort most in need of change, and especially needed is a change in attitude toward those relationships, from
at least three standpoints; donors, IARCs, and the NARS.

- It is very difficult to define what we mean by NARS. Is it only government institutions or does it include the private sector and universities, for example? Who decides the scope, direction and purpose for a NARS?

- NARS relationships can be a heavy user of core funds of the IARCs, and yet this is probably not desirable in the long run because it competes heavily for funds needed to support strategic research of global importance for which the CGIAR has comparative advantage.

- Catalytic funding and support are needed to help get things going better at the national level in developing countries.

- The CGIAR is looking more toward a demand-driven effort, bilaterally funded, to support NARS. The World Bank may have a special organizational or forum role in helping to achieve this. The result could be a supply-driven, internationally-funded effort aimed at major global strategic issues for the IARCs, married with a demand-driven, bilaterally funded, NARS strengthening effort, that can be linked more effectively in a kind of continuum. The continuum would aim to bring supply-driven and demand-driven efforts together to meet global agricultural research needs facing developing countries.

- A new longer-term partnership is indicated, where each country and partner contributes something, e.g., germplasm, information, funds, technology, or systems management. The CGIAR should try to move away from the donor/client relationship to a partnership of users.

- There is a need for a new honesty on the realities of relationships with NARS, including a recognition of the heterogeneity of NARS.

- The CGIAR is lagging in partnerships in some cases because it collaborates mostly with public sector institutions, and often with a single ministry.

- In dealing with NARS and other institutions in the global agricultural research system, the CGIAR must recognize: (1) most of these linkages are still experimental relationships, so the system should not become too frustrated with things as they are -- still learning and testing; (2) many problems relate more to people than to models of collaboration; and (3) the
CGIAR probably needs new mechanisms for joint planning.

- The CGIAR deals every day with a very complex system that: (1) is oriented to the supply-side at the international level and funded multilaterally; (2) oriented to the demand-side at national levels and funded bilaterally; and (3) relies on regional partnerships, mostly demand-driven but funded both multilaterally and bilaterally, that require special mechanisms to ensure funding, good management, and allow good decision-making and priority setting.

- The CGIAR still must deal with countries with special problems, such as heavy reliance on one donor or countries with little or no scientific infrastructure.

- The CGIAR needs to find institutional relationships that are "incentive-compatible".

- The IARCs of the CGIAR clearly do not have development responsibilities for national research systems overall, but they can help with pieces or cells of such a system.

J. THE ECOREGIONAL CONCEPT

The CGIAR has been successful in improving agriculture on a commodity basis, primarily by improving the genetic makeup of the organism and improving its production environment. The system has been less successful in managing the larger environment. In natural resource management research, CGIAR's comparative advantage is in relation to NARS, but the CGIAR does not have an absolute comparative advantage in natural resource management.

The ecoregional concept is really not new; the foundations used it in planning the formation of IITA and CIAT. What is different from that formulation is that IITA, CIAT, ICRISAT and ICARDA were given responsibility not only for an ecogeographic area but also were given commodity responsibilities. Perhaps the early ecoregional emphasis might have lost some support with the great success of the new semidwarf wheats and rices. In some people's minds there is an implied failure of the ecoregional approach at those four centers, plus in many ways, ILCA, which has had ecoregional responsibilities in Africa. Also, at the same time some decentralization of the work of some of these centers was also going on, which often began with the agroecology as the unit of planning. Indeed, in the past some IARCs have built networks to get closer to national needs in other areas.

TAC defines an ecoregion as an agroecology, regionally defined or determined. In 1986 the CGIAR Africa Task Force was
concerned about the number of centers working with small NARS. Their studies implied a new mechanism was needed for working with NARS that included some idea of regionalism. TAC believes there should be ecoregional centers that have activities defined more at first by agroecological considerations (the resource endowment) rather than a given commodity as the organizing and/or planning unit.

The thinking of TAC goes approximately this way. The commodity approach has failed to come to grips with natural resource management needs. Donors who invented the commodity approach also created specialized centers outside the system; e.g., irrigation, fertilizers, soils, etc., which TAC sees as a symptom of the problem. Irrigated ecosystems cut across many regions, so may need special attention. Highland or montane ecologies have in common both higher elevations and cool temperatures that present particular problems. There are fundamental knowledge gaps relating to natural resource management. TAC believes that the centers in doing farming systems research work were more involved in commodity research than they were doing good soil and water management research. A comment was made that there are real problems with, "single commodity jockeys riding into an area without proper knowledge of the natural resource management problems". Here, it is believed, coordination mechanisms are needed. The question is, can commodity research needs and natural resource management needs be met through the ecoregional approach? In TAC's view, the ecoregional centers will not be coordinating mechanisms, but would be CGIAR centers. The ecoregional centers will not be doing farming systems research nor agronomic research. When translating these ideas into structures, the CGIAR should not be hidebound concerning structural models. Coexisting efforts should be set up carefully and should be closely linked. IITA today is close to an ecoregional center, in the general sense.

TAC agrees the commodity approach allows faster results, more identifiable impact, and is more manageable. Measuring impact of ecoregional centers will be very difficult, and probably will be measured through yields of commodities, especially through sustained yield increases. Measuring sustainability of the natural resource base is much more difficult; even specialists are not sure about measures that can be used with reliability. TAC would start today, if asked, by establishing needed ecoregional centers "to do the major global job" and would then put global commodity centers on top. Linking of the commodity and its use of the natural resource base is the key. TAC recognizes the linkage between global activities and ecoregional activities needs to be developed more. It is obvious some centers can and should be multipurpose, but this must be done carefully and with clearly defined purposes. Some possible aggregations of centers need to be considered; here the idea of "de-creation and creation of institutions" was
introduced. Some use of weighted commodity values by agro-ecological region could be helpful in rethinking global/ecoregional activities and roles. Where a single commodity dominates an agroecology, we might start from a commodity approach rather than a natural resource endowment approach. On going from strategy to structure: build on existing strengths and be willing to look at new models of collaboration [here the six institutions working together at the ICRISAT Sahelian Center were mentioned as an exciting development]. Should the CGIAR be hidebound on the separation of regional ecologies; for example, how about a worldwide highlands effort?

It was argued that commodity researchers in the past were not blind to natural resource management issues. For example, IITA had a strong natural resource management effort at one time, but that effort was not encouraged after a while, and indeed was finally discouraged and de-emphasized. The ecoregional concept is attractive, but concerns remain in implementation. Why not use the term mechanism rather than center to keep our thinking straight? It is probably right to start with natural resource management concerns on an ecosystem basis through research consortia, but will a consortium effort increase or decrease NARS efforts in these areas? Should centers form consortia to study the resource base, and if so, how about the involvement of institutions outside the CGIAR? Should other institutions on the commodity side be involved, and if so, how? Aren't there complex management issues involved in such centers, e.g., coordination of research teams, sources of leadership, role(s) of boards? What products can be delivered early by the ecoregional centers? How can the CGIAR move from the ecoregional strategy to structure? What are the important consortia that need to be organized? TAC has said there clearly are strategic research issues here of global importance; CGIAR is likely to need new mechanisms in resource management to identify those issues and work to solve them. The private sector is likely to be involved more on the commodity side, but it is difficult to see how the private sector might become interested or involved in a significant way in soil and water research.

The ecoregional approach is probably needed, and there apparently is potential to get value added from such research. However, donors then probably will be funding programs rather than centers; if that happened, it would change many things in the CGIAR.

Some questions need answering: how many zones, how many centers, should all zones be served? Asia is the biggest question mark, since there is no clear ecoregional center there, except ICRISAT which serves part of the Subcontinent, and much more needs to be done in Asia in that regard. An interesting approach is now under consideration to handle problems of the
highlands of East Africa; a consortium of IARCs led by ICRAF is being planned.

The discussion here was criticized somewhat, in that it sounded to one listener as if the only players in the game were the IARCs. What is it the centers can do in a new or different context than before? The arguments and decisions must go much wider than just the CGIAR decisions or activities.

Some have asked how the ecoregional approach differs from farming systems research, where considerable emphasis was placed on the soil, climate, etc. Does the ecoregional approach look for new knowledge or development of technology? If the latter, how will we measure impact? What is the value added by this approach? Is it just another cross-cutting complication in managing centers?

The Directors General have raised some questions concerning the ecoregional center concept. To them the concept remains confused -- a) is it supposed to be a focus for natural resource management? b) is it a mechanism for improving inter-center cooperation? c) is it to improve IARC relationships with NARS? The centers have no problem with b above, but the problem is how to rationalize a and c, especially since many NARS have little comparative advantage in natural resource management. The DGs believe center mandates should not be based on an ecoregional basis, but on an agroecological basis which is more specific.

Concern was expressed about how success would be measured. Will there be separate, free-standing bodies of work that can be identified clearly, both by donors and NARS? Is the ecoregional concept a basis for strengthening existing work, or will it create something quite different; will it result in the CGIAR hanging out a different bill of wares?

How will scientists work to develop technologies? The approach does seem to give a basis for locating research stations in important areas. Zimbabwe was given as an example where it was used in this way, but it was believed the drier areas were somewhat neglected in the process. It was suggested that outside help may be needed in defining, refining and mapping the zones.

The irrigated ecosystem was the first one to be worked on by the CGIAR, since CIMMYT and IRRI in their early work with wheat and rice chose the irrigated ecosystem for primary attention, with great success. Today, in the irrigated ecosystem, there remain two big tasks for the CGIAR: (1) protecting the yield gains made [i.e., maintenance research] and (2) raising yield potential even further. The CGIAR has a clear comparative advantage in irrigated ecosystems, with the work of IRRI, CIMMYT and IIMI in particular.
Dryland areas were discussed, those areas that Robert Chambers calls complex, diverse and risk-prone (CDR). It was suggested that dry areas need consortia devoted to water management. What should the CGIAR do in mountain areas? The coastal ecosystem needs attention [one speaker said it was crucial] especially if ICLARM enters the system, and particularly in cooperation with ICRAF and IRRI. What comparative advantage does the CGIAR have in showing the linkages between agricultural potential and present and future changes in land use?

One speaker presented a word of caution concerning implementing international agricultural research on an ecoregional basis; considering that it could be useful only for organizing and conducting national research.

What kind of research would be handled by ecoregional centers? Interdisciplinary resources would or should be assigned to handle specific research efforts in a region. Global centers would move more upstream toward strategic research, concentrating on global needs, but regional needs would be handled through ecoregional centers.

Moderator’s Summation on the ECOREGIONAL CONCEPT

- In general, the CGIAR has produced greater results on commodity and productivity research than on natural resources research.

- There is a need for better information on managing the natural resource base, but this should not be an end in itself.

- Is the ecoregional concept a primary way of approaching research on cropping systems, or is it a way of approaching land and water resource questions?

- Not just physical or biological, but also social problems need attention in the ecoregional context.

- A question: is the ecoregional scheme proposed in TAC documents more radical than TAC really intended? There is great uncertainty as to how radical a change in structure is implied or desired.

- The ecoregional concept raises not just concerns for specific centers and their operations, but also raises concerns for the system itself.

- It appears the ecoregional concept will not require a complete overhaul of the CGIAR, but some adjustments and realignments may result. Communicating these
adjustments, and avoiding either radical or no changes will be critical at the May meeting.

K. LINKAGES WITH THE PRIVATE SECTOR

The CGIAR is mostly a publicly funded system. What are its responsibilities in that regard with respect to the private sector? One speaker questioned why this discussion was being held at all. Was the CGIAR about to prostitute itself? Perhaps the CGIAR might deal with the private sector in upstream research in developed countries. There was a meeting last year with different groups in the private sector. The CGIAR has not had much success in bringing about increased private sector support for the system. In the very early days of the CGIAR strong efforts to obtain private sector support were made, without success. At that time it was thought the private sector was not interested in supporting research they did not control. Here it was mentioned that control was not so much an issue as proprietary advantage.

There is considerable agricultural research going on in the private sector. In the USA about 60 percent of agricultural research is carried out by the private sector; that ratio soon will be 80 percent private, 20 percent public. There is not much opportunity yet for private sector activities in most developing countries. Seeds, fertilizer, agricultural machinery are examples of significant private sector involvement in research and development. Almost every time a farmer uses a vaccine, herbicide, insecticide, fungicide, farm tool or machine, for example, he or she is dealing in some way with the private sector. In that sense a wider agricultural research system involving the private sector is already in place. What is not clear is what is the level of involvement in 1992?

Private sector involvement in the CGIAR has already begun. It was pointed out that there already is significant involvement with the largest segment of the private sector, the farmers. Some private sector scientists serve on boards and review panels, there is involvement in discussions concerning intellectual property rights, plant breeders' rights, material exchange agreements, etc. So far, the private sector has had little involvement as a donor, but some projects and programs have received some private sector support. Intellectual property decisions of the CGIAR were seen to have important implications for future relations with the private sector.

Advantages of potential CGIAR and private sector ties include: (1) partnerships; (2) new markets; (3) national support organizations for the CGIAR; and (4) a reminder that the greater majority of technology transfer from North to South is through the private sector.
The discussion is timely. Plant protection is one rapidly growing area where private sector and CGIAR concerns are intersecting and merging. Plant protection concerns include its relationship with the environment and natural resource management.

There is an underutilized opportunity for the CGIAR to help more small industries in rural areas. The CGIAR should consider a wider universe here than just the multinational companies. Problems in dealing with the private sector are not in machinery or information, for example, but relate much more to biotechnology and intellectual property rights. It is hoped the UNCED discussions can help on some of the latter matters.

Concern was expressed that the CGIAR has relations with private companies in developing countries through national authorities; could the CGIAR hurt itself in some ways in some countries if its relationship with private companies is too close?

Could IARCs do more on a contract basis with private firms? One speaker saw no reason why the CGIAR should not buy expertise or technology needed at a particular time from a private firm. It was pointed out that the centers are contracting to, and from, private companies now. Intellectual property rights questions enter these relationships in many cases.

Should a paper on interactions of the CGIAR centers and the private sector be prepared and discussed at International Centers Week this year? At least one speaker disagreed with the need for such a paper now. Is there a way to learn individual donor governments' viewpoints on this? There is a need to learn more about what is happening to private research in developing nations and its links to the CGIAR.

The potential bridging role of the CGIAR between the private sector and developing countries was raised.

The CGIAR has to adjust to changes in the agricultural research situation, including the emerging role of the private sector. This does need further study.

Moderator's Summation on RELATIONS WITH THE PRIVATE SECTOR

- The CGIAR has much to learn about working with the private sector.
- Strong anti-private sector sentiments exist in several circles related to the CGIAR.
- At present, developed nations are experiencing a shift from an approximately 80 percent public/20 percent private ratio of funding for agricultural research in
the past to something like a 20 percent public/80 percent private ratio in the future. In this environment, the CGIAR must find ways to work effectively with the private sector.

- Intellectual property concerns are almost certain to come more strongly into the picture for the CGIAR centers, in particular, breeders' rights, material exchange agreements, and even patents. For some persons and donors, intellectual property rights are a political issue, at least in part, while they are moral or ethical issues for others.

- The private sector is likely to play a much greater future role in, e.g., funding, information, germplasm development, crop protection, etc.

- Education concerning the private sector is needed within the CGIAR. Should a special paper on the subject be presented, say, at International Centers' Week, 1992?

**L. FUNDING**

There is a perception of a recurring funding crisis in the CGIAR. The CGIAR has grown in the past by adding new things. Forestry and natural resource management research were added with the expectation there would be increased funding to make them possible.

What are the prospects for funding? Are there any changes, new donor prospects, new mechanisms? What are the consequences of poor prospects for increased future funding? Can the CGIAR take on new initiatives when the present situation obtains and be considered responsible?

One speaker was not so concerned about new initiatives in general, partly because the CGIAR is in a constantly evolving situation, in which some areas gain, others lose. In this regard, the process seems to be natural and needs-oriented.

Another speaker indicated he would like to be more adventurous and activist than accepting the status quo concerning funding. The CGIAR should push for greater funding, while at the same time looking at the needs of the individual IARCs and the NARS partners who need funding - not necessarily CGIAR funding - to enable healthy partnerships.

Other speakers supported the adventurous concept, calling not for evolution as usual but for evolution to meet the unusual. New partnerships were mentioned by several speakers as a possible avenue for improved funding. A more dynamic approach to funding
is needed. One person said the CGIAR must be out in front, not behind in international agricultural research matters. One person supported the idea that higher funding levels could be supported, perhaps partly by emphasizing the importance of agricultural development in the environment and in migration patterns. He pointed out that almost as much funding goes to regional activities as goes to international activities that are funded by unrestricted core. There should be increased regional funding, but are the IARCs ready to work on this basis and handle such programs?

Regional funding possibilities are there. WARDA is the only center that assesses its member states for research services. Regional developments could be important in helping expand the ownership of the CGIAR, which could then help expand funding.

The idea of a recurring funding crisis was challenged to some extent, the argument being that the CGIAR has never operated in a deficit funding situation, and that new centers have not been added without funding [in this sense the non-associated centers entered with funding of their own].

From TAC's perspective today, flat funding with increases to meet real costs would be difficult; flat funding with nominal increases but not enough to keep up with costs would be scary. One speaker thought it was difficult to assess the funding situation today.

The possible future of the Keystone International Dialogue Series proposal for a Global Initiative on the Conservation and Sustainable Use of Plant Genetic Resources was raised. If approved and implemented by UNCED, this could bring new resources to the CGIAR for its plant genetic resources work.

One speaker believed new donors could still be found. One speaker suggested that many donors financed the CGIAR with the hope it would grow toward the NARS and thereby take care of problems. Unless that growth occurs, he believes, funding for the CGIAR may diminish.

Some donors are moving more to special project funding. Some donors like to support regional projects, which in some cases compete with the CGIAR for funds. Financial ministers in many countries do not regard agricultural research as a priority.

In at least one developed country national research program, core funding today is much smaller and tighter, but peripheral funding is much larger and presents more opportunities. There can be positive results in making the core smaller and incorporating increased complementary funding. The question then came: but didn't this move result in the flight of scientists? In answer, the statement was made that system was now able to
bring in a continuous stream of younger scientists, and reduce the buildup of aging scientists.

In the past, discussion of NARS and their problems were not popular at the CGIAR; this has changed. Also, at one time the CGIAR was about the only place where governments could invest in research; this is no longer so. Some problems in governance and management at centers have caused concern. Also, the CGIAR has added new activities without a financing plan. But, the system should not be so pessimistic. Food and nutrition are very important. Plant genetic resources are a clear strength of the CGIAR, and plant genetic resources efforts by UNCED could bring significant benefits to the CGIAR. The emergence and continuing articulation of the global agricultural research system are very important. We need now to find ways to incorporate Eastern Europe and the Commonwealth of Independent States. The CGIAR is an important global forum for international agricultural research needs.

Why not consider the idea of smaller but more stable core budgets for truly international activities and then fund consortia and other activities from outside core?

Agriculture is seen by some people either as a villain [and so it needs fixing] or a solution, especially in production and environmental problems. This affects CGIAR funding prospects.

The system needs to do several things. It must demonstrate it can respond to new needs, that it uses resources well and effectively, and that it is well articulated with its constituencies. There will be increased pressures for less unrestricted core funding. In dealing with aid-related donors, a move away from central departments to geographic departments may lead to more funds, because funds are more likely to be available in geographic departments. For unrestricted core funding concepts such as the global commons and the global good make the best arguments. Consortia, networks, other mechanisms for cooperation or collaboration are all important in ensuring funding. Also, the importance of good impact analyses cannot be overlooked.

The CGIAR is more exposed than most institutions because of the virtual lack of contract funding. Problems came about this year because of unanticipated developments in two donor countries.

Moderator’s Summation on FUNDING

• There seemed to be two schools of thought at the Consultation regarding funding: (1) the food problem is very serious, so the CGIAR needs to be more dynamic and push here for growth in funding; and (2) a more
conservative view, which said there may not be room for expansion of funding, but perhaps that is all right anyway, for in a more focused global system. fewer funds may be required.

- Decisions on which of these two approaches is to prevail need to be made before TAC enters the new budget process.

M. DONOR OF LAST RESORT

The World Bank has traditionally played the role of donor of last resort in the CGIAR. There are pressures today in the Bank to review this role: (1) from financiers who ask why the Bank should top up the funding for those centers that other donors will not fund to the full extent, and does this mean the Bank is funding the weak centers, and (2) from agricultural staff who feel estranged from the IARCs and who ask if the Bank, as donor of last resort, is being taken for granted by the centers. There is not enough knowledge in the Bank about the centers; this does not help the relationship between Bank agricultural staff and the IARCs. The World Bank does not believe it can live with the status quo, because of the two pressures mentioned above. But any change the Bank might make must be responsible: (1) it will not second-guess TAC recommendations, (2) perhaps marginal adjustments could be used at the start, especially for centers that have relied heavily on donor of last resort funding for a long time. The Bank is not consulted in the allocation process carried out by the Secretariat; that will have to change.

The value of donor of last resort funding was reviewed by several speakers: (1) the selfless behavior of the World Bank in its role as donor of last resort has been a major strength of the CGIAR, the other major strength has been the base core contribution of the United States; (2) another strong factor here has been the simultaneous ability of the CGIAR to resolve collective and individual concerns while ensuring stability of the CGIAR system; (3) the core principle ensures basic, longer-term strategies that maintain the integrity of the core program; (4) the donor of last resort system has helped maintain continuity to ensure that the system will not have serious oscillations; (5) the donor of last resort system has given the CGIAR room for innovation and flexibility [conversely, some have questioned whether the possible protection of possibly weaker centers has deprived the system of some innovation and incentive]; (6) the proper functioning of the donor of last resort depends on priority setting and resultant funding patterns. For additional areas of potential research, donors like to pass clear messages to centers.

It was emphasized strongly that having a donor of last resort is essential and fundamental to the CGIAR, which is an
informal group. Who acts in that capacity and who pays is another question. For example, the responsibility could be shared; this would allow the World Bank to express its preferences better between centers and/or activities. Approximately 15 percent of the total budget of the CGIAR depends on last resort donor funding. It is not apparent now what the proper number might be, if reductions were to be made, but it is clear that zero would be disastrous. There seems to be no consensus today on what is the proper level of support as donor of last resort. The World Bank is not necessarily moving toward special project funding, but it might give part of its contribution as donor of last resort and the rest might be allocated to the core budget of individual centers, based on criteria established by the Bank.

The question was then raised: as the World Bank changes its role in this regard, doesn't it make the Bank's role in the CGIAR more difficult? The answer seemed to be, yes. One speaker was especially worried about the "impartial leadership" role of the World Bank in the CGIAR if the Bank moves to a different allocation process. Will the Bank's changing role move the centers more into an institution building role in some regions, e.g., Africa, and might the rest of the CGIAR see that as a negative move?

One speaker pointed out the IARCs did not listen much to the views of small donors, and the only recourse such small donors have is to adjust or reduce funding. What would happen if the donor of last resort disappeared; he was not sure. Donors do like to give to individual centers rather than giving to a common fund. Is it possible to go back over past years and see what might have happened to individual centers and to the system if the Bank had not been there as donor of last resort? He liked the idea that if a center is supported at a maximum level from the donor of last resort, that should signal the start of a declining share for that center of the last resort funds.

Another speaker favored a more disciplined approach to funding, including: (1) a smaller core; (2) biannual funding; and (3) perhaps reduce the safety net for centers but move to multi-year funding.

One speaker indicated he would not object to the World Bank reducing its donor of last resort role, perhaps by 25 percent. If the World Bank took up allocation itself, the question is, how would the World Bank set restricted core funding programs? There could be staffing implications for the Bank if this move was made. Also, it probably would require some involvement of geographic regions in deciding restricted core funding plans.
Would other donors be willing to share the donor of last resort function? Some donors do appear willing to help play such a role.

One speaker very familiar with IARC operations suggested that special project funding made IARCs plan, and plan well, because such funding is multi-annual in nature, while core funding is annual in nature. It was stated that the Directors General believe there is more incentive to seek complementary funds than core funds. This, however, is also related from an incentive standpoint, on use and charge of overheads [which, in some ways are considered core]. Overheads do increase incentives. TAC has tried to maximize core and minimize complementary funding. If core is seen as flat or declining, then the incentive for a Director General is to go very hard after complementary funding. Such efforts can result in "entrepreneurial mercenaries", but the CGIAR should not turn the system over to such attitudes. Can the system combine incentives for Directors General while retaining coherence of the program? At present, every dollar of core funds gathered just reduces the World Bank core funds going to a given center, so incentives for gathering new core funds are low.

The incentive question was questioned by one speaker who emphasized that what we are supporting is a system, and that too much incentive for individual centers could distort the system. The Group needs more transparency and discipline, to prevent the unrestrained quest for funds and potential growth of less-needed or lower priority areas, while higher-priority areas remain smaller and less-well-funded. Another speaker emphasized that the CGIAR must look at incentives, not only from the standpoint of core funding, but also from the standpoint of complementary funding, because it has serious implications on how TAC acts to understand the total size and direction of the IARCs and the CGIAR. This results in a limits to growth and direction question for the system that is urgent.

Improved public awareness was mentioned as a complementary activity that could help fund raising. Impact analyses were cited as one need. Also, the CGIAR has image problems in some circles that might be overcome by a stronger, more effective public awareness effort.

A speaker told how one donor has tried to obtain additional funds for regional activities. It is frustrating for a donor not to know what is being financed by funds supplied by a donor in a region. Transparency and discipline are needed.

In addition to the essential role of the donor of last resort for the CGIAR, it was suggested that a stabilization mechanism is needed, to help individual centers in special-need situations.
Moderator's Summation on DONOR OF LAST RESORT

- The donor of last resort plays a vital role in stabilizing the system by allowing longer-term strategic planning and priority setting.

- It is important to prevent false expectations at center level concerning funding at the next series of planning/budget reviews.

- The role of the World Bank as donor of last resort is very important, but some questions arise: if specific IARC allocations are made by the World Bank how are judgements made, especially since the role of the World Bank as an impartial leader of the system might be affected; is there any other way the Bank could allocate its funds in a different way and still play a role as donor of last resort?

- Are incentives for centers and their leadership increased or decreased because of the role of the donor of last resort? How much entrepreneurship is needed, wanted?

- Some mechanism is needed to reduce year to year uncertainties in funding and to help Centers with specific crises?

N. CLOSING REMARKS OF THE CHAIRMAN OF THE CGIAR [midday, Feb.5]

Because of his travel schedule Mr. Rajagopalan had to leave the Consultation at midday on February 5. He made some personal remarks at that time which are summarized here. He stated the Consultation had been for him a rapid immersion course.

After 20 years and over US$ 2 billion invested, the question of whether there is still a need for the CGIAR draws an answer of a resounding yes. There is clearly a need for strategic research on important global and international problems that are suited to the CGIAR. The CGIAR is an evolving global system, with some new roles. He hopes the CGIAR will continue to contribute meaningfully to the solution of problems for poor people and producers. Some brief observations:

- Relations with national agricultural research systems (NARS) are a critical issue; more work is needed here. The definition of a NARS seems to need clarification.

- He hopes to involve the World Bank more fully in working with strengthening of NARS.
He was pleased to see the increased linkages with the private sector, but was disappointed that no private sector person was present during the Consultation. Both the potential benefits and costs of closer involvement with the private sector need examination.

Intellectual property rights questions are certain to influence the CGIAR and the system must learn how to handle these questions effectively.

He was pleased with the discussion on the relationships with Eastern European countries and the Commonwealth of Independent States and the cautious approach taken.

Mr. Rajagopalan hoped the discussions could help TAC with its work on priorities, and believed the Consultation should help the Group in reaching consensus on important matters at the Mid-Term meeting in Istanbul in May.

Regarding funding, problems appear to be recurring, but concerns should not become self-fulfilling prophecies. Is the Group underfunded? He could not tell, at least clearly, from these discussions. Can funding be gradually moved away from aid toward a member- or beneficiary-funded system?

He mentioned the World Bank has invested over US$ 300 million in the CGIAR over the past 20 years. The recommendation to the World Bank board for 1993 is an increase to 15 percent, with a US$ 40 million ceiling.

He closed with thanks to Wally Falcon for acting as Moderator, to Andrew Bennett and Taff Davies for hospitality and arrangements, and to the participants for taking time out to attend and take part in the discussions.

O. MODERATOR'S QUESTIONS REGARDING MANAGEMENT OF THE SYSTEM

The discussion for the final afternoon was opened by the Moderator, who asked a series of questions that would be taken up in several areas. The questions are recorded here, and pertain to the following sections. His brief summary for the afternoon is condensed at the end of the report.

- Are there ways of obtaining accountability and control in the system without swamping it in paper, bureaucracy and crushing controls?

- The resource allocation process needs special attention, especially the medium term budgets; how can improvements be made?
What should be the role of the World Bank in the system?

Has the CGIAR grown large enough to need a CGIAR Executive Committee?

P. BUDGETS AND THE BUDGET PROCESS

It was emphasized the Group did not want to place a preconceived supply constraint on individual center plans. A new approach to the allocation process was implemented over a three-year period; this resulted in some difference between centers, at least this was the perception of some. And, of course, supply constraints did occur.

TAC now aims to incorporate relative priorities by region, agroecologies, commodities and key problems in the allocation process; then institutional priorities begin to come into play. For each center an indicative target budget will be set for the year in question. Each center would be given a "budget envelope", say plus 7 percent to minus 4 percent, for the total program.

With the process just described, one person asked, how can the system be dynamic? The answer was, a continuing process of priority analysis by TAC.

How about a contingency reserve system to meet unforeseen difficulties? The response was, it depends on criteria on which to base the targets, especially the upper limit.

One speaker said if he was planning, he would use zero real growth. The ability to continue to fund the system will depend on the responsiveness of the Group. There will be a political overlay in all of this at some time. What are the costs of doing this or that, in this place or that? Who ensures value for money in the system: TAC, Secretariat, boards? Does the Group need a better mechanism between donors and centers? Quite a bit of infrastructure has been added in the CGIAR; is this too much: e.g., Secretariat, TAC Secretariat, TAC. Is our system of infrastructure and support for the system too complex; is it efficient? In other words, who does what and who is responsible for it?

TAC was given budget responsibilities, by default, on a temporary basis. The budget review system and process, in order to be quantitative and transparent, does appear to be bureaucratic.

In most cases the centers have been consulted in the process, collectively and individually. Some concepts may have been considered as fait accompli, from the center standpoint.
One speaker was uneasy because this is a very heavy-handed process, the final result of which is the allocation of World Bank funds? The process is systematic (but can it be explained?), ambitious, takes into account many factors, yet appears rigid.

The donors have only TAC to turn to. Will or should TAC have two main roles in the future -- decide on the quality of science, and recommend how much to spend in certain areas or for certain subjects? Perhaps there should be minimum budgets for each center: (1) for truly international roles, (2) beyond that, centers would decide what is complementary. It was pointed out the Clifford Committee suggested just that, a minimum guaranteed budget, beyond which a center would be given a 'hunting license'. This proposal was not approved by the Group, so the system returned to where it is now as a starting point.

One speaker favored allocating to programs and regions and not to centers. More competition is needed, especially in ecoregions, so centers would compete for funds with better-designed programs.

There is a fundamental problem here. All mechanisms discussed here depend on priorities and strategies and how they are decided. How is scientific research quality decided? By setting priorities, TAC is almost managerial because it makes decisions for a center, but also carries out the reviews and has oversight of their subsequent implementation. From a center viewpoint, the centers need guidance on shifting programs.

Distinction should be made between shareholders who come with money (donors) and stakeholders (NARS). Planning of new activities, especially consortia, require the use of core resources. To run a consortia or network, a center must have a 'heart' (i.e., a strong program); that core program is a center's main capital.

A participant reviewed how the CGIAR got to this point. First, the Group wanted a closer relationship between priorities and the budget. They also wanted to establish a supply constraint. TAC has organized a process to try to accommodate that need. TAC may have - or at least appears to have - more degrees of freedom in execution of this plan than it may appear. TAC has agreed to potential financial add-ons, beyond the initial constraints indicated by the priorities exercise. That is important. However, a contingency allowance will be needed for each center and/or program, to ensure necessary freedom for scientists.

Does TAC have any flexibility in the planning framework? The priority time frames are pretty much set. Five-year budgets are probably too long. There is a longer time frame on the
demand side, but the CGIAR still locked into one-year budgets on the supply side.

Suggestions for TAC: tell the Directors General they can reserve some contingency funds, say 10 percent; then allocate some contingency at the system level that can be competed for, including some support of the planning process.

Q. GOVERNANCE AND/OR INSTITUTIONAL INNOVATIONS

Substitutional infrastructure has been added in the CGIAR; is this too much: e.g., CGIAR Secretariat, TAC Secretariat, TAC. Is the system of infrastructure and support for the system too complex; is it efficient? In other words, who does what and who is responsible for it?

Maybe it is time for another review of the system.

Yesterday, the Group seemed to open the door for mechanisms instead of necessarily centers. Is the planning and priority process shutting the door to mechanisms other than centers? There will be relatively rapid program changes in the CGIAR. Generally, the Group passes out budgets to responsible institutions; these are usually centers. How can non-traditional mechanisms enter the process? How will management of a particular mechanism be given to a certain center.

Are there activities or programs the CGIAR should fund, outside the center system? If so, how? IICA might be one such example.

Regarding possible CGIAR bureaucracy or those tendencies, several comments were made. A question arose about how the market place might enter the process of decision-making, partly to replace the concept of a centrally-planned operation.

The Chairman of the Group needs an advisory committee. Do the Cosponsors play that role well? Can the Cosponsors be augmented to make it more effective as an Advisory Committee? The CGIAR has tried to find an ad hoc means to provide such consultation. Examples explored include a Standing Committee, an Executive Committee, etc. The effectiveness of this London consultation is an indication of the need for such a consultative subgroup. In these three days understanding has improved on important matters. Past efforts to obtain a kind of advisory committee have usually foundered on membership and/or representation questions. It is possible that membership could rotate, but that may be difficult for some donors. Could the Chairman's Advisory Committee be elected? If so, election could be done within the constituencies. In the review of the CGIAR Secretariat held about four years ago, an elected Policy Advisory Council was suggested.
The regional representation system of fixed-term members from various regions is not working well. What can be done? Could regional institutions with standing and influence in their regions serve this function, e.g., IICA or SACCAR?

The question of how Non-Governmental Organizations (NGOs) might be represented in the Group was discussed. One person called attention to the fact that these groups are active but diverse, and quite independent. Which ones are closest in purpose to the CGIAR? Which NGOs are likely to be most relevant or interested: those oriented toward development or the environment? What would be the rights and responsibilities of NGOs in the framework of the CGIAR?

The global CGIAR system should continue, but perhaps should be complemented by regional consultative groups, not as copies of the global effort, but complementary. Their composition might be: regional donors, regional NGOs, etc. Such entities would have regional purposes and perspectives. Such a regional mechanism is being discussed for Latin America, especially for priority setting. The importance of regional mechanisms for consultation on a continuing basis was emphasized by one speaker.

International Centers' Week was mentioned as needing some revision. Now there are two purposes; centers' week and business meetings of the Group. Should one day be set aside for regional meetings? Other changes? The meetings are already very long. Are the matters covered really of international importance? Could the CGIAR meetings, Centers' Week and the Mid-Year, be structured as follows: (1) general international issues; (2) center issues; and (3) program issues?

It was suggested TAC should be composed of five members instead of the current 17. Perhaps, then, the Group would be less likely to overload TAC. It would also mean that the TAC balance of representation of developed/developing countries and disciplines would no longer apply. TAC has become quite large; many would like to make it smaller. Geographical balance on TAC can be important in how TAC is perceived.

R. ACCOUNTABILITY

Accountability is needed at several levels in the CGIAR: (1) at system level; and (2) at center level, (3) at program level, in the sense of an activity across centers (the so-called stripe review concept). There is a certain amount of regional caucusing to discuss matters related to the CGIAR, e.g., Europe, North America.

There are better ways to do reviews than we are doing now. A review should list inputs and outputs of a center for the five year period being reviewed. Reports should be shorter. Probably
reviews should be done the way bank examiners do them, unannounced.

Is it easier to get accountability on programs rather than centers? For example, are program objectives/inputs/outputs clearly described?

Impact information is still difficult to obtain. It would be good to have a brief statement of major impacts in the external program reviews. The review report should also include information on problems faced by a center that are less tractable or that limit the center's effectiveness.

The system will find it more difficult to explain itself, as it moves more into natural resource management.

Increasingly, reviews are asked to look at the future rather than the past. Future strategy has become the emphasis of today's reviews. Management reviews can be very important.

S. BOARDS

Boards face special problems because they have both program and management responsibilities. Information flows now are probably not adequate to meet board needs. One experienced board member said it may not be so much a matter of information as of knowledge. It is not easy for boards to catch up with problems and needs.

A good, vigorous board can accomplish its job. Board membership takes a full two weeks each year for each member, and much more time is required for the Chairman and other key members. Boards are very mixed in their composition; many have some "passengers" among their members. Board membership is often "too accidental".

Moderator's Summation on GOVERNANCE AND/OR INSTITUTIONAL INNOVATIONS

- Has TAC taken over the executive function for the CGIAR?
- The size of TAC seems to be of some concern to some persons.
- There seems to be a need for some adjustments in the CGIAR meetings.
- Should the CGIAR do more of its business on a regional basis, especially as the ecoregional concept is implemented?
Final Summary by the Moderator

- Expressed his thanks for having the opportunity to interact both such an extraordinary group on such important issues.

- Is TAC worried too much about 5 year plan? Are there any shorter time frames that might be useful?

- Has TAC taken over the executive function for the CGIAR?

- The size of TAC seems to be of concern to some persons?

- There seem to be adjustments needed for CGIAR Center’s Week.

- Should the CGIAR do more of its business on a regional basis, especially as the ecoregional concept is implemented.

- Reviews should put particular emphasis on conduct and impact of Centers.
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