

DISCUSSION DRAFT

THE FUTURE OF INFORMATION ACTIVITIES IN THE CGIAR:  
A SYSTEM-WIDE STRATEGY

Prepared by  
Center Directors' Committee  
on  
Information, Documentation and Training

Consultative Group on International Agricultural Research

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## Foreword

This draft information strategy was prepared on behalf of the Center Directors' Committee (CDC) for discussion by the CDC and the CGIAR's Technical Advisory Committee (TAC) during International Centers Week in October 1994. It is expected that once the strategy is discussed and endorsed by the center directors and TAC, it will be offered to the CGIAR for comments and endorsement.

The information strategy outlined in this document was prepared using a bottom-up process of consultation conducted over several years involving a large number of information specialists in the CGIAR centers. The major components of the strategy were developed during an information workshop held at ISNAR in June 1994 at the request of the CGIAR center directors. This workshop brought together information officers from most CGIAR centers in addition to resource persons from the CGIAR Secretariat and specialized institutions. The workshop was designed at a special meeting of the Center Directors' Committee on Information and Documentation held in Rome in March 1994. The June workshop resulted in the development of a summary outline of an information strategy which was informally discussed with TAC later in the same month. Following the TAC discussion and comments from CGIAR centers, a Drafting Committee consisting of Howard Elliott (ISNAR), Selcuk Ozgediz (CGIAR Secretariat), Paul O'Nolan (ISNAR), Elizabeth Goldberg (CIAT), Bob Huggan (IRRI), Jay McLean (ICLARM) and I reviewed the summary outline in depth and prepared the more comprehensive strategy statement presented here.

On behalf of the CGIAR center directors, I would like to thank the large number of individuals who contributed to the development of the draft strategy. These include not only the members of the Drafting Committee, but also the members of a special Task Force on Electronic Communication, established by the center directors in late 1993, the participants in the March and June 1994 meetings referred to earlier, the many information specialists in the CGIAR centers who contributed their ideas to the "INFO-REM" in 1993 and 1994, the TAC/CDC members who participated in the June 1994 TAC meeting, and the very large number of stakeholders who provided comments on the summary outline prepared at the ISNAR workshop. Special thanks go to Howard Elliott and Selcuk Ozgediz, who played major roles in organizing the June workshop and providing continuing direction in the development of the strategy.

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# THE FUTURE OF INFORMATION ACTIVITIES IN THE CGIAR:

## PROPOSAL FOR A SYSTEM-WIDE STRATEGY

### I. Overview

#### Introduction

This document outlines a system-wide strategy for information activities in the CGIAR. It was prepared at a very critical time in the evolution of the CGIAR - a time when business as usual is no longer acceptable, and when all parties must be willing to work together as a system and for a system.

The strategy offers an immediate opportunity for the centers to demonstrate their commitment to collaboration in a vital technical field. If seized, the opportunity could yield additional benefits: it could provide a model for system-wide coordination in many fields of importance to the CGIAR and a special approach to communication with our partners -- both within the system and outside. For this reason, the strategy pays special attention to advantages of joint action and inter-center collaboration using modern information technologies, and to the gains in effectiveness and efficiency to the CGIAR system, to NARS, and to other partners that can result from such collaboration.

This strategy document has four sections. This overview includes a section that places the strategy in the context of information in the changing CGIAR system. Section two presents proposed strategic goals, objectives, principles and directions. From these considerations, system-wide actions of highest priority are derived and presented in section three. Section four discusses implementation and includes a proposed initiation and oversight mechanism. Since the implementation of the strategy cannot be undertaken solely by the CGIAR centers, the role of external partners in the process of strategy development and implementation is highlighted.

In this strategy, the term information is used in its broadest sense. It refers not only to data (whether on paper, visual, or electronic, bibliographic, quantitative or special) but also to the inputs and outputs of research processes and to the technologies used for manipulating data and preparing them for use by decision makers. Unless otherwise noted, the term "CGIAR" refers to the system of CGIAR centers and not to the group of donors to the system.

#### Context

The CGIAR system is in a process of profound change. This process has several dimensions. First, there is a new emphasis on system-wide initiatives. These complement the center-specific initiatives that have been the principal feature of the CGIAR system since its inception. This emphasis on system-wide initiatives is being accompanied by a shift in funding mechanisms. Funding of individual centers is giving way to funding of system-wide programs. The system is seeking better ways to integrate its activities. It is also searching for ways to increase efficiency and bring greater stability and predictability to funding.

The CGIAR's modalities are shifting towards programs involving stronger partnerships with national agricultural research systems (NARS), non-governmental organizations (NGOs), and other actors. At the same time, there is an increasing desire on the part of the specialized services, especially at FAO and CABI, to collaborate with CGIAR centers on information activities.

Outside the CGIAR, change is equally visible. Advances in information technology (IT), and especially the development and spreading use of the Internet, are creating unprecedented opportunities for accelerating scientific research and technology generation processes. At the same time, such advances bring the danger of uncontrolled flows of information. This so-called "information overload" could undermine the efficiency gains resulting from the availability of improved technologies.

Unfortunately, the CGIAR centers' ability to respond to such changes in a positive manner is currently limited. Because the centers were established as autonomous entities, few system-wide information activities have so far been implemented. Indeed, many of the CGIAR's information activities at present suffer from incompatibility, duplication of effort, limited sharing of resources and, consequently, foregone opportunities for efficiency.

Information management in the CGIAR needs to change if it is to respond positively to the changes in the internal and external environment described above. Change would enable the CGIAR to keep pace with its collaborators in IT, particularly in the developed world, while maximizing the efficient use of the increasingly limited resources available to the CGIAR centers.

It would also greatly expand the system's responsiveness to the needs of the NARS and other stakeholders, since such needs are best addressed in a coordinated fashion and using the latest advances in information technology.

## II. Strategy

### Strategic goals and objectives

The CGIAR mission statement, stated below, embodies the overall purpose of the system's information activities:

Through international research and related activities, and in partnership with national research systems, to contribute to sustainable improvements in the productivity of agriculture, forestry and fisheries in developing countries in ways that enhance nutrition and well-being, especially of low-income people.

The phrase "related activities" includes primarily information and training activities carried out by the centers.

Information is pivotal to CGIAR research. It is both an input to and an output of research activities. Also, information systems are integral parts of the CGIAR's research processes, i.e., the means with which inputs are transformed into outputs by the centers.

In pursuance of the CGIAR mission, system information activities should aim for the following goals:

1. To enhance the quality and relevance of research and decision making of CGIAR staff, their clients and partners.
2. To disseminate effectively the results of IARC and partner research.
3. To contribute to the development of an efficient and effective global information system on agricultural research.

Goal 1 underscores the importance of providing quality information inputs into CGIAR and partner research and decision making. As a corollary of this goal, the CGIAR should facilitate the access of NARS and other clients to quality information needed for their research.

Goal 2 highlights the critical role that information services play in disseminating the outputs of research carried out by the CGIAR alone or in collaboration with other institutions.

Goal 3 stresses the place accorded to the information function in the long-term vision of the CGIAR, as recommended by TAC. That is, the CGIAR should play a catalytic leadership role in the evolution of a global information system on agricultural research. Contributions should be made by CGIAR centers, NARS, FAO, CABI and other key actors.

These overarching goals should serve the CGIAR information activities through the long term. However, in the short to medium term the CGIAR's information function should serve three additional objectives. These are dictated by the CGIAR's present circumstances and are articulated below.

1. To increase the CGIAR's efficiency, as a system, in the provision of information services.

In some areas the CGIAR could improve efficiency by system-wide action. System-wide action would naturally lead to some additional costs initially. Over the long term, however, benefits are likely to outweigh the costs.

2. To help the CGIAR function as a unified system.

The CGIAR highly values center autonomy. However, there are many occasions when the system would be more effective if it acted as a unified entity. The information function can be an important conduit of a single-system image.

3. To facilitate the CGIAR's evolution from a center-based to a center- and program-based operation.

A fragmented, center-based information system is not likely to meet the information needs of CGIAR-wide programs. (Such programs constitute one of the axes of the center-by-program matrix describing the CGIAR's agreed research strategy.) For these programs, an efficient inter-center information platform is needed.

#### Strategic principles

Commitment to the following principles is necessary for the system to achieve the above goals, overcome current limitations, take advantage of opportunities, and strengthen its potential to act as a community and its commitment to consultation.

1. **CONNECTIVITY:** within the CGIAR and with outside partners;
2. **COMPATIBILITY:** a prerequisite for connectivity and collective action, but should not be a straight jacket limiting a center's flexibility to accommodate new and emerging technologies;
3. **PARTNERSHIP:** enhancing the relevance and impact of the CGIAR's work by fostering new modes of collaboration and joint action with partners inside and outside the system.

#### Strategic directions

Achievement of the system's goals in the information area requires that the CGIAR, as a community, agree to move in two strategic directions:

1. Commitment to joint action within the system when there are widely shared goals. This means that, as a system, the CGIAR should move towards joint information products, common policies and standards in information areas where collective or collaborative action is necessary, greater sharing of each other's information facilities and resources, and a common communication infrastructure.
2. Effective collaboration among entities with common interests or important services to offer. This applies, in particular, to institutions like FAO and CABI. Collaborative or coordinated action in the information field by the CGIAR institutes and FAO, for example, by using compatible standards in information products or communication technology, would add value at the client level. Similarly, when it is more efficient, the CGIAR should use specialized services rather than carry out an activity itself.

To implement these strategic directions a number of high-priority actions at the system level are identified. These are discussed in Section III overleaf.

### III. High-Priority System-Wide Actions

#### CGIAR information domains

CGIAR information activities are typically carried out in one of four traditional domains:

- computer and electronic communications infrastructure;
- library and documentation services;
- publications;
- information networks and databases.

To these four information domains may be added public awareness as an additional domain.

Recognizing the increasing importance of public awareness and its relation to fund raising, the CDC created a special Public Awareness and Resource Committee (PARC). The CGIAR information officers, in collaboration with certain donors and other stakeholders, have created a Public Awareness Association (PAA). The activities of these two groups are the subject of discussions in other fora but their relationship to the traditional information domains is clear.

The use of electronic communications for sharing information with donors and partners is growing. Center documentation services are a source of information useful for public awareness, as are publications targeted to build popular support for the CGIAR and its work. Shared information on scientific and institutional issues enables the Centers to respond to specific questions of focus and the potential impact of their work.

#### Integrating information functions

New information technology is bringing the traditionally separate information domains closer together. Desktop publishing, publishing in electronic format, electronic communications, accessing documentation and sharing of databases depend on the advances achieved in computers. There is a natural joining of these functions that requires some attention to coordination at both the center and system levels.

At the center level there are many ways of achieving coordination. Structurally, one center may organize its information functions by putting all domains in the same unit. Alternatively, a center may determine that each domain has its specific clients and be large enough to organize a separate unit for each. While it is clear that the information domains will become increasingly synergistic, there is no single way of bringing this about. No "model" is best for all centers large and small. If a center chooses to create organizational units around the performance of the information function, some residual management must remain on the client side (and vice versa). Whether coordination is done through information committees or by incorporating the domains into a single unit must be the choice of each center in response to its particular needs.

Coordination at the system level, therefore, must recognize the diversity and autonomy of the centers. Since each center will organize its information functions in its own way,

there must be conscious efforts to create the structures and mechanisms to link the people and the centers of the system.

With this perspective in mind, this strategy does not present high-priority system-level activities by traditional information domain but rather discusses them under six themes representing areas calling for major change:

1. a common electronic communication network;
2. networked information systems and databases;
3. information partnerships;
4. common technical standards for information products;
5. joint acquisition of inputs and production of outputs;
6. staffing and human resource development policies.

Each of these is discussed below.

#### 1. A COMMON ELECTRONIC COMMUNICATIONS NETWORK

The availability of a reliable high-speed network for electronic communication among CGIAR centers is essential for many of the system-wide information actions identified in this strategy. The Inter-Center Workshop on Information, which gave rise to this strategy, placed highest priority on the establishment of such a network.

The following arguments highlight the rationale for placing a high priority on this action:

- \* Having a dedicated electronic communications network would enable the CGIAR to install several system-wide information applications on a common platform.
- \* Information is the lifeblood of a research enterprise like the CGIAR. The CGIAR is likely to be a more productive research enterprise if it is equipped with advanced communications facilities. As a matter of principle, technologically, the CGIAR should not lag behind the research entities with which it collaborates.
- \* A dedicated network would facilitate integration of efforts of autonomous centers and help enable the system to speak with one voice.

With or without a dedicated communications network, it is essential that all CGIAR institutions link with the Internet, which at present serves as the global communications network. The CGIAR institutions have three options for Internet connectivity:



- a. Each center makes its own arrangements for linking with the Internet, and the centers use the Internet for whatever inter-center information activities they wish to carry out.
- b. The CGIAR establishes a dedicated communications network with the participation of all centers, which it uses for a high-speed link to the Internet and for other internal communications purposes. This network would be an Internet "subnet" functionally part of the Internet but offering additional services to all CGIAR centers and serving as a platform for CGIAR applications.
- c. The CGIAR establishes a high-speed internal communications network for interested centers and builds system-wide databases and other tools on this network. Centers that belong to the dedicated network access the Internet through the CGIAR network; other centers use alternative means for linking with the Internet. All centers contribute (financially and otherwise) to the building of databases and other tools on the dedicated network. Some centers access the databases and tools through the CGIAR network, others via the Internet.

While this strategy favors a common, dedicated CGIAR electronic communication infrastructure with participation by all centers (option b), such a strategy cannot be implemented in a system of independent, autonomous entities, unless all centers are convinced that this approach is a win-win solution for the system as well as for each individual center. This was the option recommended by the Center Directors Task Force on Electronic Communications. This means that centers not convinced of the advantages of a collective approach would choose option c above, and could reconsider their decision over time as they observed the costs and benefits of participation in the dedicated network by the other centers.

In addition to the arguments listed above for attaching highest priority to establishing a common electronic communications network, there are some technical reasons for advocating a dedicated CGIAR network along the lines recommended by the CGIAR Task Force on Electronic Communications:

- \* The network would enable integrated voice and data traffic (including features like a four-digit internal system-wide telephone dialling facility with free internal calls).
- \* Among other things, the service provider managing the network would provide directory services, reliable mail delivery with backup services, mail-enabled applications (e.g., email-to-fax service), network monitoring and administration.
- \* The dedicated network would provide a minimum guaranteed bandwidth, enabling participating centers to make several uses of the available bandwidth, including the possibility of engaging in video conferencing at a future date.

The network would be managed commercially, outside the CGIAR, without adding another administrative layer to the system, but would be accountable to the CGIAR through coordination mechanisms outlined in Section IV on implementation.

In non technical terms, a dedicated CGIAR communications network could help build a new culture of cooperation within the system. In terms of costs, initial estimates by the Task Force on Electronic Communications suggest that a dedicated system could be implemented without incurring additional costs because savings would be generated by carrying voice communications on the internal network.

In summary, this strategy calls for all centers to join in the establishment of a high-quality electronic communications network, with the flexibility to allow future electronic communications applications, such as video conferencing.

## 2. NETWORKED INFORMATION SYSTEMS AND DATABASES

The CGIAR should accord high priority to coordinated development of databases and information on genetic resources, geographic information systems, bibliographic databases, trends in national systems and management information systems. A brief comment on each follows.

**Databases on genetic resources.** The CGIAR genetic resources stripe review recommended the creation of a standardized system of information management by the CGIAR genetic resources program to enable databases to be integrated through out the system so as to simplify communication with NARS. An integrated approach will be dependent on the existence of a reliable, fast, and cost-effective means of communication among centers, a desire to cooperate and the adoption of some standardization in approaches to description and management. Widespread availability of such information will facilitate NARS' access and help in the development of international legislation to protect farmers' rights.

**Geographic information systems.** Geographic information systems are becoming an increasingly powerful tool for integrating natural resource and socio-economic information for improved agricultural research management and sustainable development at the international, regional, and national levels. Agroecological analysis can delineate zones that are likely to exhibit a homogeneous physical response to the application of new technology. However, the actual response is limited by the market, infrastructural, institutional, cultural and other conditions governing technology adoption and use. The CGIAR must participate in pilot projects to test the utility of such approaches for research and planning not only within the system but in NARS as well. There are NARS in all regions of the developing world initiating their own studies and seeking inputs from the international centers in these projects.

**Bibliographic databases.** There is a need for a complete, searchable database of currently available CGIAR publications. A combined publications database will enable the clients and staff of the centers to search for titles within the entire current selection of center publications. The database would enhance the image and understanding of the CGIAR as a productive system of value to others. In addition, there is a need for shared access to bibliographic data on the information holdings of the centers as a whole. Again a system-wide database would meet both internal and external needs.

Reliable information about national systems. Up-to-date information on the level of human and financial resources invested in national agricultural research, as well as their allocation among principal commodities, research themes and target groups is essential to planning regional and international collaboration. A systematic effort is required to develop and analyze reliable information that is comparable both across countries and over time. The CGIAR has a key role in this process as both a user and provider of information and analysis. Such information on investments by national systems and their donors is crucial to identify trends in support and ultimately to measure the impact of research on agricultural development.

Management and decision support systems. On the research side, system-wide initiatives and eco-regional programs will become a more prominent part of the CGIAR's total budget. The resulting need to adopt common approaches to planning, budgeting and evaluating research should lead to the use of compatible project management and accounting systems. Comparable research protocols will help in planning cooperation or in evaluating competing activities. On the management side, there may be economies to be gained in joint licensing of software for accounting or project management. This will make for easier exchange of data and information for planning purposes and more usable information for TAC and the CGIAR secretariat in preparing the system overview.

### 3. BUILDING INFORMATION PARTNERSHIPS

The CGIAR system should aim to foster new modes of partnership and joint action both inside and outside of the system in ways that enhance the relevance and impact of the CGIAR's work. Improvement of the information flows between the CGIAR institutes and the NARS is both an objective and an offshoot of efforts to improve information management within the system. Centers belong to different communities in addition to the CGIAR and the nature of a center's interactions vary with both the partners and the nature of the problems. Centers have effective collaboration with entities that share common interests and productive exchanges with organizations that have important services to offer.

The CGIAR should provide open and equitable access to its information products and services. Stronger partnerships can be fostered by

- \* ensuring more effective communication with and participation of partners (e.g., NARS, NGOs, developed-country institutions) in the centers' work;
- \* enhancing NARS' capacities in information areas to the extent that this is compatible with the center's mandates and priorities.

In addition, there should be coordinated development of information products that take advantage of supplementary and complementary competencies offered by other institutions such as CABI and FAO. This may be achieved on either a partnership or a contract basis as circumstances warrant.

There are many initiatives underway to extend electronic connectivity to scientific institutions, NGOs and universities in developing countries. The international centers can help by being open to such collaboration and assisting where their effort enhances the efficiency and effectiveness of work falling within the centers' mandates. Specific actions may include the building of connectivity between IARCs and NARS through electronic networks and conferencing mechanisms and the exchange of databases, publications, software and personnel to strengthen NARS' capacity. It clearly falls within the mandates of international centers to serve as a bridge to NARS by developing collaborative agreements with external organizations to provide specialized information products and services to clients. Finally, CGIAR programmatic needs are served by strengthening national capacities in documentation for the conservation and use of plant genetic resources and by the development of integrated training modules in information management for use by the system and its clients.

#### 4. COMMON TECHNICAL STANDARDS FOR INFORMATION PRODUCTS

Rapid changes in technologies, dramatic changes in the costs of access and distribution, and an increase in the number of generation, distribution and access options will make partnerships more important and standards necessary. Standards developers are recognizing the need to provide not only for compatibility but also for local variation, by insisting on a common syntax or common interchange format, rather than a single "correct" form. Many tools are being developed to facilitate compliance with these standards. The CGIAR will need to invest in planning and adopting of such standards to enhance system synergy, improve the ability of centers to share scarce resources and facilities, and benefit more from collaboration with allies outside the system.

The institutional and scientific impact of the system is reflected in improved research capabilities of NARS and in contributions to increasing the knowledge base. Publications by the centers provide indirect measures of impact through their numbers (volume) and the extent of their distribution as well as through their use as expressed in citations in the literature and from surveys. The development and application of common bibliometric and survey techniques across the system would provide quantitative measures of impact by country or region, by program or literature type, or even per scientist. As well as demonstrating the value of investment in the CGIAR, these measures would provide feedback for reorienting the system's publication policies and the research programs themselves.

#### 5. JOINT ACQUISITION OF INPUTS AND PRODUCTION OF OUTPUTS

Concern about cost effectiveness focuses attention on the potential economies to be gained through joint acquisition of inputs and sharing facilities in the production of outputs. Joint acquisition aims at capitalizing on the negotiating power of a larger system; sharing facilities achieves economies of scale and fuller use of a specialized capacity created in one center to serve several others.

The potential for achieving economies in purchasing will be different among centers and information domains. Subscriptions to scientific journals, for example, are a high-cost input to research. Many centers subscribe to the same journals and pay premium service charges to subscription agents to manage ordering and delivery. While computer hardware and software are now generally available in competitive markets, there are some gains to be had from purchasing as a group. Certain software applications may be available to the group as a whole on very attractive licensing terms.

There are many specialized services required by the system that have a minimum scale of operation that goes beyond the resources of a single center; for example, the maintenance of geographic information systems, video production or facilities for machine translation of publications require high capital investment and specialized expertise. For such services costs may be shared through joint acquisition and shared use.

There are also potential economies to be gained through joint production of outputs. An example here is the production and mailing of a single, system-wide annual report. Such a report would not preclude each center's producing the targeted scientific and public awareness information that centers often include in their annual reports. However, it would be a natural vehicle for reporting system-wide initiatives and inter-center programs as well as the more mundane audit reports required by law.

Some scientific results may be produced and disseminated at the system level by a lead institution. Alternatively, a united publications effort through a commercial publisher or service-provider such as CABI could bring reduced costs while enhancing the collective image of the system. The use of telecommunications networks and adherence to common standards for electronic publishing will provide the flexibility to produce easily a wide range of information products for targeted audiences by drawing selectively on electronically stored information. Desktop publishing is already allowing the production of tailored books for particular target audiences with limited production runs.

The centers should evaluate the benefits and costs of such activities as the production of a full-text Compact International Agricultural Research Library (CIARL) on compact disk as an alternative to print publication. A system wide publications catalog database would permit the production of subject-specialized or individual center catalogs on demand. Finally, the system would benefit from electronic dissemination of non-text outputs. Sharing of analytical tools or decision support applications with partners through the Internet may be the most efficient way of disseminating improved scientific approaches and management tools. Data on the CGIAR itself, needed by centers for public awareness purposes, may also be freely available to all.

Although the realization of economies in purchasing and production are worthwhile in their own right, the type of joint actions described above will enhance the prestige of the system. Appropriate incentives should be put in place to encourage centers to support such system-serving activities.

## 6. STAFFING AND HUMAN RESOURCE DEVELOPMENT POLICIES

Commitment to high system-wide standards in staffing and human resource development policies would foster the development and maintenance of top-quality information staff throughout the system. Appreciation of the role of information in its various aspects should be a relevant criterion in the recruitment of senior administrative and research staff. These two statements combined argue that high professional standards must be maintained in the information functions of the centers, which requires the understanding and support of senior management and scientists.

In the implementation of modern information systems, hardware and software technical issues occupy only 25 percent of the effort. The other 75 percent involves subject-matter or content management, information management, and general management, including management of personnel. Centers differ greatly in their access to information professionals and the price they must pay in their local labor markets. Therefore, each center has its own grades, staffing policies, and remuneration schemes to achieve the same level of professionalism. However, for efficient interaction, centers should agree on minimum competencies for staffing, training and program design that are necessary to acquire and manage modern communication and information systems that will keep pace with the technological future and emerging demands for research information.

The support of senior management is required. This may include recruiting managers who have among their qualities an understanding of the information function and a willingness to put in place measures for developing staff skills and rewarding initiative and high performance. For the inter-center system to work, managers need to commit their centers and reward their staff for contributions to system-wide information services. This may involve cross-posting of staff and consultancies internal to the system.

### IV. Implementation

The actions outlined in this strategy reflect a radical change in the manner that information matters heretofore have been addressed in the CGIAR. Implementing these changes first requires action on the part of many actors as well as mechanisms for ensuring that these actions are coordinated well. Second, a set of norms is needed to provide answers to typical operational questions. Third, means of financing the change proposals should be explored.

#### Coordination and organization

A system-wide mechanism is needed to implement this strategy, by developing a more specific plan for change and overseeing its implementation. This should be a centers-based mechanism because the principal actors involved are the CGIAR centers.

Building on the experiences of other inter-center initiatives, the centers should establish an Inter-Center Working Group on Information (IWGI) to implement the strategy outlined here. IWGI should coordinate system-wide information activities on behalf of the

centers. This would involve

- \* planning system-wide activities, including the preparation of the specific plan for change noted above;
- \* establishing system-wide standards and policies;
- \* establishing standing working subgroups and ad hoc task forces on specific issues, taking advantage of the system's internal resources;
- \* overseeing the implementation of system wide information activities.

IWGI should be closely associated with at least three working subgroups covering:

- \* *information technology, including computers and electronic communication;*
- \* *library and documentation;*
- \* *publications and public awareness.*

IWGI could establish ad hoc working groups or task forces in other areas, such as networks, databases and management information services. The working subgroup should provide coverage of information domains with significant special interests. In addition to approving inter-center action in information domains, IWGI should serve as a forum for addressing cross-domain issues and limit the fragmentation of information functions.

Composition. IWGI should be structured along the lines of the Center Directors Benefits Committee. This committee has leadership by center directors and membership that includes selected center staff bringing specialized domain expertise. It is recognized that the IWGI must reflect perspectives from a larger number of domain constituencies than is the case of the Benefits Committee. The working group would be composed of the following:

- \* the chair and members of the Center Directors' Committee on Information, Documentation and Training;
- \* the chairs of the working subgroups on
  - information technology, computers and electronic communication;
  - library and documentation;
  - publications and public awareness;
- \* the chairs of ad hoc working subgroups on information, if any, and during the term of the ad hoc working subgroup,
- \* the Executive Secretary of the CGIAR or designated representative.

IWGI should be chaired by the chair of the CDC on Information, Documentation and Training. To the extent that this committee carries responsibility for training, it should

maintain a personality distinct from that of IWGI. If responsibility in the area of training were to be assigned to another subcommittee of CDC, IWGI could function as a subcommittee of the CDC in much the same way as the Benefits Committee does now.

IWGI's workload would depend on the extent to which working subgroups would carry responsibilities under the general oversight of IWGI. The working subgroup on information technology, computers and electronic communication, for example, should carry the responsibilities proposed for an "Inter-Center Information Council" in the report of the Center Directors Task Force on Electronic Communications (March 1994). These principally include principally: planning of system-wide activities, establishing system-wide standards and policies, monitoring the execution of system-wide activities, and overseeing the contracting of system-wide services provided by outside agencies, particularly the agency providing communications services. Other working subgroups would be expected to develop inter-center action proposals in those areas most closely associated with their professional interests. After the endorsement of such proposals by IWGI, the subgroup would carry responsibilities for their proposal's implementation.

While the size and composition of the working subgroups should be determined by their constituencies within (and without) the CGIAR, the initial chairs of the subgroups should be appointed by the CDC. The subgroups should develop procedures for their own operation, subject to endorsement by IWGI.

### Norms

Four norms should guide implementation of this strategy:

- a. Subsidiarity. An information activity should be handled at the center or system level, depending on the level that provides a platform for the most efficient operation in the medium and long term.
- b. Center autonomy. As autonomous entities, centers should be free to participate or not to participate in inter-center information activities.
- c. Incentives. When collective action by the centers is in the best interest of the system, CDC and IWGI should reinforce such action by providing appropriate incentives to participate.
- d. Cost sharing. The cost of inter-center information activities not funded through outside sources (such as project funding through a donor) should be shared on an equitable basis among the centers benefiting from the activity.

### Funding

Two types of costs are involved in implementing this strategy:

- \* one-time costs for modifying existing structures or building new ones as called for by the strategy (i.e., the costs of making the called-for changes);



- \* recurrent costs of implementing the inter-center information activities after the change period.

The one-time costs can be presented in discrete project proposals in the change areas covered by the strategy. Thus, the whole change plan package would be in the form of a separately fundable activity. It is recommended that funding be sought from the CGIAR for the change plan package, in whole or in parts, as a system-wide activity.

The costs of implementing the inter-center activities after the change period should be covered through various sources. Program funding could be sought from the donors for inter-center information activities that are of a program nature (e.g., building and maintaining on-line databases for use by the centers, NARS and other collaborators). Information activities that are of a system overhead nature (e.g., maintaining a CGIAR-wide common electronic communications platform for use by the centers and donors) could be covered by donor funds allocated to this purpose. Other inter-center information activities would be funded collectively by the centers along the lines of the norms outlined above.

## V. Conclusion

This document outlines the collective vision of the CGIAR centers, for the future of system-wide information activities. They have identified the system-wide actions that need high-priority attention. They have developed a workable mechanism to implement these actions and suggested appropriate financial arrangements to fund them.

What is needed now is the solid endorsement of the strategy by all key stakeholders and its rapid implementation by the centers and their partners. Such a step would greatly expand the CGIAR's responsiveness to the information needs of the NARS, enable the CGIAR to keep pace with its collaborators in information technology, and maximize the efficient use of the CGIAR's limited resources. Perhaps as important, implementation of the proposed strategy would demonstrate the centers' commitment to work together as a system for the benefit of those whom they serve.

To: Members: Center Directors Committee  
Members: Center Deputies Committee  
Executive Secretary, TAC  
Executive Secretary, CGIAR  
Chairperson, CBC

From: Christian Bonte-Friedheim, Chair, CDC

Date: September 29, 1994

Subject: **Information Activities: A System-Wide Strategy**

It is with great pleasure that I am sending you the draft CG information strategy, prepared on behalf of the CDC by our Committee on Information, Documentation and Training. This document, entitled "The Future of Information Activities in the CGIAR: A System-Wide Strategy" is the collective response by the centers to the challenge we face to enhance the synergy of our system.

This draft strategy was developed in a bottom-up manner and involved widespread participation from center professionals in all information domains. It built on a number of electronic conferences, drew on resource persons outside the system, and brought these together in an Inter-Center Workshop on Information, held in The Hague in June 1994. The strategy proposals emanating from that group were discussed informally with TAC later that month and received comments from centers over the following months. In his foreword, the Chair of the Committee on Information, Documentation and Training expresses his thanks to all those who participated in the discussions and to the drafting committee which worked with him to prepare this document. On behalf of the CDC I add our thanks as a group.

As soon as possible we will have to review the strategic goals, objectives, principles and priority actions recommended by the Committee, and agree on the next steps. These include actions relating to the establishment of a high-quality, dedicated electronic communications network; networked information systems and databases; information partnerships; common technical standards, joint acquisition of inputs and production of outputs; and staffing and human resource development policies. To plan and implement these actions we are asked to create an Inter-Center Working Group on Information which will develop a plan of change, as a system-wide activity, for which funding may be sought from the CGIAR in whole, or in parts.

The attached document must be reviewed by the meeting of Deputy DGs in October. They must report to the CDC at the end of their meeting, providing specific recommendations on the report and on follow-up action. The CDC will have to take certain decisions. Then, on Saturday, October 22, we will discuss this subject with TAC and CBC in our joint meeting. If, as I hope, we will arrive at certain agreements, then during ICW 94 we will inform the CGIAR. I am hereby asking the Deputies also to review the effects of the information strategy implementation on our planned collaboration in training. Do we need a separate sub-committee on training? This is one of many issues to be raised and solved in Washington.