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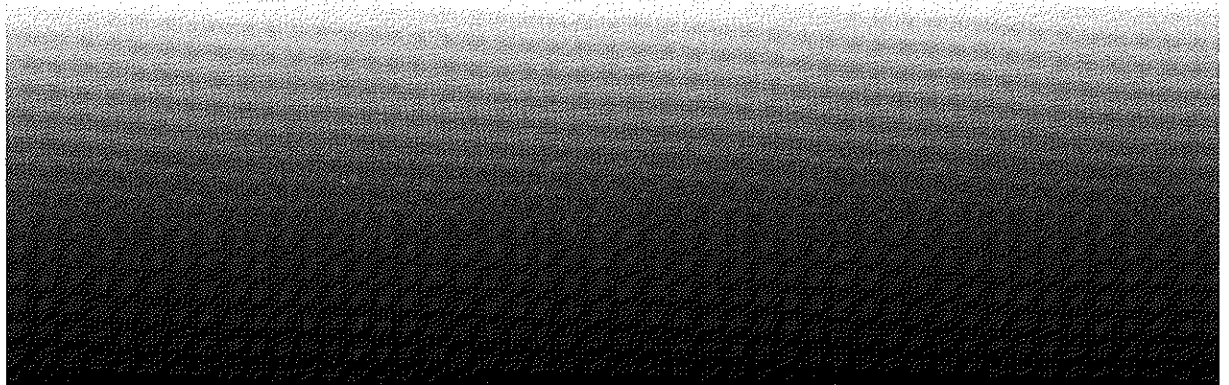
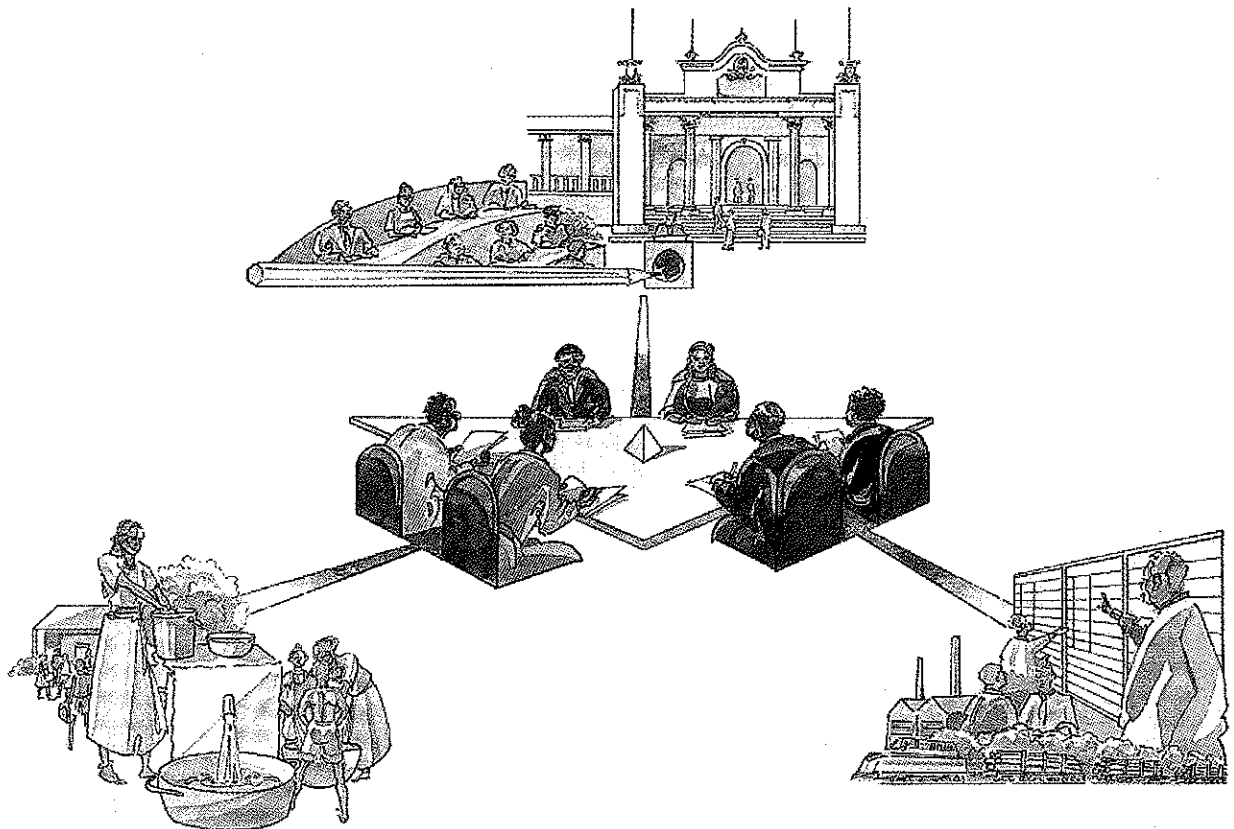
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# *ISNAR* Annual Report 1997

## Theme Essay

### Governance of Agricultural Research: Shifting Roles in Decision Making



## ISNAR's mission

ISNAR's mission is to enhance the performance of agricultural research systems in developing countries. To this end, ISNAR carries out research and provides services in the areas of policy, organization, and management together with national partners and stakeholders.

### Highlights of ISNAR's 1997 activities

1. In the final year of an action-oriented project to improve linkages between research, technology transfer, and farmers' associations, representatives from agricultural organizations in Senegal, Mali, Tanzania, and Zimbabwe put in place linkage planning methods based on studies done by ISNAR since the late 1980s. (page 8)
2. ISNAR, in collaboration with the Japan International Research Center for Agricultural Sciences (JIRCAS), launched a five-year training project on agricultural biotechnology and information. It offers a series of short training courses for senior Asian research managers in the areas of biotechnology and information. (page 9)
3. The interface between natural resource management (NRM) researchers and policymakers must be strengthened in order to achieve effective, sustainable use of natural resources. Such was the conclusion of a consultation cosponsored by ISNAR and held in Maastricht, the Netherlands. Participants urged scientists to address their results more directly to policymakers, and policymakers should bring scientists into their inner circle of reform advisors. (page 10)
4. ISNAR's World Wide Web site has become a multilingual, much-consulted source of information on a wide range of topics related to ISNAR's work. Statistics show that in 1997, visitors from all over the world accessed ISNAR's pages nearly 100,000 times. (page 11)
5. Six country case studies carried out in ISNAR's "Universities in NARS" project highlighted some key challenges for improving universities' contributions to development-oriented research. The national steering committees in Benin, Burkina Faso, Côte d'Ivoire, Nigeria, Uganda, and Zimbabwe began implementing the action plans that were developed during the project and debated in both national and international workshops. (page 12)
6. Three agricultural research institutes in Latin America developed an integrated system for planning, monitoring, and evaluation (PM&E) of their research projects in an ISNAR project that has, thus far, trained dozens of national staff in PM&E. (page 13)
7. Continuing collaboration between ISNAR and the Kenya Agricultural Research Institute (KARI) focused on priority setting of KARI's natural resource management research activities. The procedure developed is based on an eight-step methodology that was designed in earlier years for prioritizing research projects in commodity research programs. (page 16)
8. The Islamic Republic of Iran and ISNAR formulated a strategy for accelerated development of capabilities in information management and information technology in the Iranian NARS. (page 17)
9. ISNAR, INIA-Chile, and the Swiss Federal Institute of Technology concluded a collaborative project in Chile to develop and test an analytical tool for use by national policymakers and researchers in setting priorities in Chile's national agricultural biotechnology research program. (page 18)
10. ISNAR and the United Kingdom's Natural Resources Institute (NRI) conducted three country case studies to examine how market considerations are incorporated into agricultural research strategies. The preliminary recommendations of the project focus on the adoption of a broader commodity-systems approach to research, increased participation of stakeholders in planning and monitoring, and discerning use of social-science capacities in NARS. (page 19)
11. The "farmer field school" is an approach developed in Asia to build the capacity of smallholder farmers to practice integrated pest management (IPM) through discovery-based learning, field observation, and experimentation. ISNAR evaluated the adaptation of this "capacity building" project to the conditions and culture of East Africa. (page 20)
12. A study of the performance assessment and reward procedures used in 14 of the international agricultural research centers of the CGIAR analyzes the goals, criteria, and measures used in each of the centers' assessment and reward protocols. Published as ISNAR's Research Report No. 12, the study provides examples of most of the forms used as well as the analysis. (page 30)
13. The newest addition to ISNAR's "Research Management Guidelines" publication series, co-authored by Morocco's national agricultural research institute (INRA), describes a priority-setting method that takes into account natural resource management considerations and regional research programs. (page 33)

# ISNAR Annual Report 1997

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# Letter from the Director General

The sustainability of research organizations in developing countries is becoming an area of major concern. There have been several decades of investment in human resource development, both from the poor countries themselves and from donors and the global academic community. Unlike 20 or 30 years ago, many developing countries now have significant groups of well-trained agricultural scientists at the highest academic levels. But despite this increase in human capital, there are disturbing signs that agricultural research institutions may be unable to respond adequately to the challenges of food security, poverty, and environmental protection. National agricultural research systems (NARS) seem unable to influence the international agenda strongly, to ensure that it addresses areas of national concern. Also, researchers' awareness of global scientific developments and the ability of NARS to absorb advanced technologies pertinent to sustainable agriculture are in doubt.

In January, ISNAR's third external program and management review was completed. This international evaluation of our work commended ISNAR for its strong and consistent support to strengthening agricultural research capacities in developing countries. It documented successes achieved in many countries in improving the performance of their agricultural research systems. However, it also commented that the world's changing political and economic environment requires a sharper focus for ISNAR's work. The review therefore urged us to revisit our institutional strategy for the years to come.

We have done that in 1997. In formulating a new strategic plan for 1998–2002, ISNAR consulted widely with representatives of NARS for their assessment of the challenges they face. In my first year as ISNAR's director general, I met with more than 100 NARS leaders from all continents, to seek their views of the challenges ahead and to pinpoint areas in which ISNAR can be most effective as an international research-based service institution. The needs expressed by NARS leaders were wide ranging. This is because in developing countries, agricultural research must meet challenges beyond the poverty-oriented agenda of

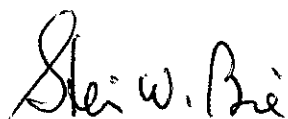


the CGIAR. This illustrates that ISNAR, as one of CGIAR's smaller institutions, must concentrate on a few key issues where our impact as catalyst and facilitator can be the greatest. Balancing the views of ISNAR's various stakeholders and partners proved to be priority setting in practice. As our new strategy developed, ISNAR itself became an experimental arena for participatory and consultative ways of setting research priorities under conditions of resource scarcity. This is an experience that we will share with our clients and stakeholders in 1998 and beyond.

Changes in the global political scene also influence the composition of the NARS. The shifting roles of public and private sectors in agricultural research is a challenge to the international technical assistance community: Who will do research to benefit poor communities? Who will provide services to those who lack purchasing power? ISNAR has long supported a revitalized role for universities in agricultural research. In a similar manner, in 1997 in Africa, new avenues may be opened in support of publicly funded poverty- and environment-oriented research and services. One of ISNAR's achievements in 1997 is encouraging nongovernmental organizations to take a role in agricultural research and services. We have also worked to build contacts with large private firms, in order to secure their commitment to provide some research and outreach services. We are particularly concerned about the harsh economic climate currently faced by many countries' public sectors. In conducting research for farmers, there is a very real chance that private-sector providers will focus on the needs of large commercial farmers, further marginalizing the needs of the poorer groups of farmers, many of whom are women. Their needs for sustainable agricultural development are acute.

Major savings on operational costs in 1997, particularly through creative use of low-cost air transport, enabled ISNAR to execute its promised research and service agendas fully in 1997, at lower cost than before. Yet we know that ISNAR's capacity to facilitate revitalization of national agricultural research systems is becoming severely hampered by resource constraints. At a time when the donor community urges national systems to take charge in promoting scientifically, economically, and environmentally sustainable agriculture, including forestry and fisheries, ISNAR sees both NARS resources and ISNAR resources stagnating or falling. This doesn't make sense either at the national or at the international level. ISNAR will take into 1998 the strategy that it developed in 1997, with its focus on globalization, governance, new technologies, and agriculture and the environment. It will urge stakeholders to act now. ISNAR remains convinced that the scope of international agricultural research will be limited until sustainable national research systems are in place in developing countries. Contributing to the development of those systems is ISNAR's mission.

Finally, in 1997 ISNAR began redesigning its stationary and publications. The addition of the CGIAR logo shows clearly that ISNAR is a part of a larger system of international agricultural research centers conducting science to serve the poor. An example of this new institutional face, my business card, is shown below.



Stein W. Bie  
*Director General*



# Message from the Board of Trustees Chairperson

Nineteen-ninety-seven was a year of transition for ISNAR. In February, Christian Bonte-Friedheim retired after serving as director general for seven years. Stein Bie assumed charge as ISNAR's fourth director general. ISNAR also developed a new strategy in a process led by staff with full involvement of other stakeholders. The strategy was thoroughly discussed by the Board of Trustees as well. A written summary was distributed at the CGIAR's International Centers' Week in October and was well received by donors and others at the meeting. Following upon the strategic planning process, ISNAR is now making important revisions to its medium-term plan for 1999–2001. It is also looking at ways to adapt its organizational structure to better reflect the objectives and thrusts outlined in the new strategy. These changes are being discussed and implemented in 1998.

Within the international agricultural research community, there is growing recognition that the agenda of national agricultural research organizations is much wider than the mandate of the CGIAR. This issue was discussed at considerable length. The result was the decision to organize a Global Forum for Agricultural Research based at the World Bank in Washington, D.C. A main responsibility of the forum will be to raise funds to support NARS development. The goal is to enable NARS to meet their responsibilities comprehensively, to generate technology that contributes to sustainable agricultural development, and to improve the family income, especially of smallholder farmers. ISNAR participated in these discussions, particularly in the parallel establishment of a NARS secretariat to be located in Rome, in close association with the Food and Agriculture Organization of the United Nations (FAO) and the International Fund for Agricultural Development (IFAD). ISNAR will outpost a senior officer to the NARS secretariat in 1998.



The demand for ISNAR's research-based service continues to grow. But ISNAR does not have enough staff to respond to all the high-priority requests for assistance. It is therefore developing a new concept of "ISNAR associates." Aimed also to facilitate South-South collaboration, ISNAR will increasingly call upon developing-country experts who can augment ISNAR's capacity to deliver high-quality services to NARS. The associates concept is now being incorporated into ISNAR's medium-term plan.

ISNAR's financial situation deteriorated somewhat in 1997. This meant that staff and management had to carefully control expenditures. As a result of these measures, ISNAR's budget was almost balanced. Nonetheless, the institute needs additional resources to successfully implement its new strategy. ISNAR's management, especially the director general and the Board of Trustees, are making special efforts to raise income to support ISNAR in carrying out its mission.

In its work with NARS, ISNAR made special effort in 1997 to expand its activities in Asia and the Pacific, where work has been constrained by a lack of resources. In addition to responding to requests for assistance from a number of countries in that region, it also supported a regional organization, the Asia-Pacific Association of Agricultural Research Institutes (APAARI). Hopefully ISNAR will have a sizable involvement in Pakistan and China from next year, and its program with APAARI will develop further. ISNAR's significant involvement in 1997 with regional organizations in Central America, in eastern and central Africa, and in the Caribbean illustrate further the important role that ISNAR sees for NARS' regional associations.

The Board of Trustees had several changes in 1997. Lydia Makhubu and Yusuf bin Hashim retired from the board after completing their terms, and Maria Nieves Roldan-Confesor, Sami Sunna, Janice Reid, and Geoffrey Mrema joined as new trustees. Charles Hess retired as chairperson in December 1996 and I was elected to this position for 1997. There was also a change in board secretary—Helen Hambly Odame replaced Byron Mook in this position.

This Annual Report highlights ISNAR's main activities in 1997. The report is concise and includes summaries in Arabic, Chinese, French, Russian, and Spanish. I hope you will find it informative and enjoyable.



Amir Muhammed  
*Chairperson, Board of Trustees*

**ISNAR Board of Trustees, 1997**

*Seated from left to right: Lydia Makhubu, Stein Bie, Amir Muhammed, Janice Reid.*

*Standing from left to right: Charles F. Hess, Just Faaland, Ken-Ichi Hayashi, Mohamadou El Habib Ly, Sami Sunna, Henk Breman, Martin Piñeiro, Gora Beye, Geoffrey Mrema, Alessandro Bozzini.*

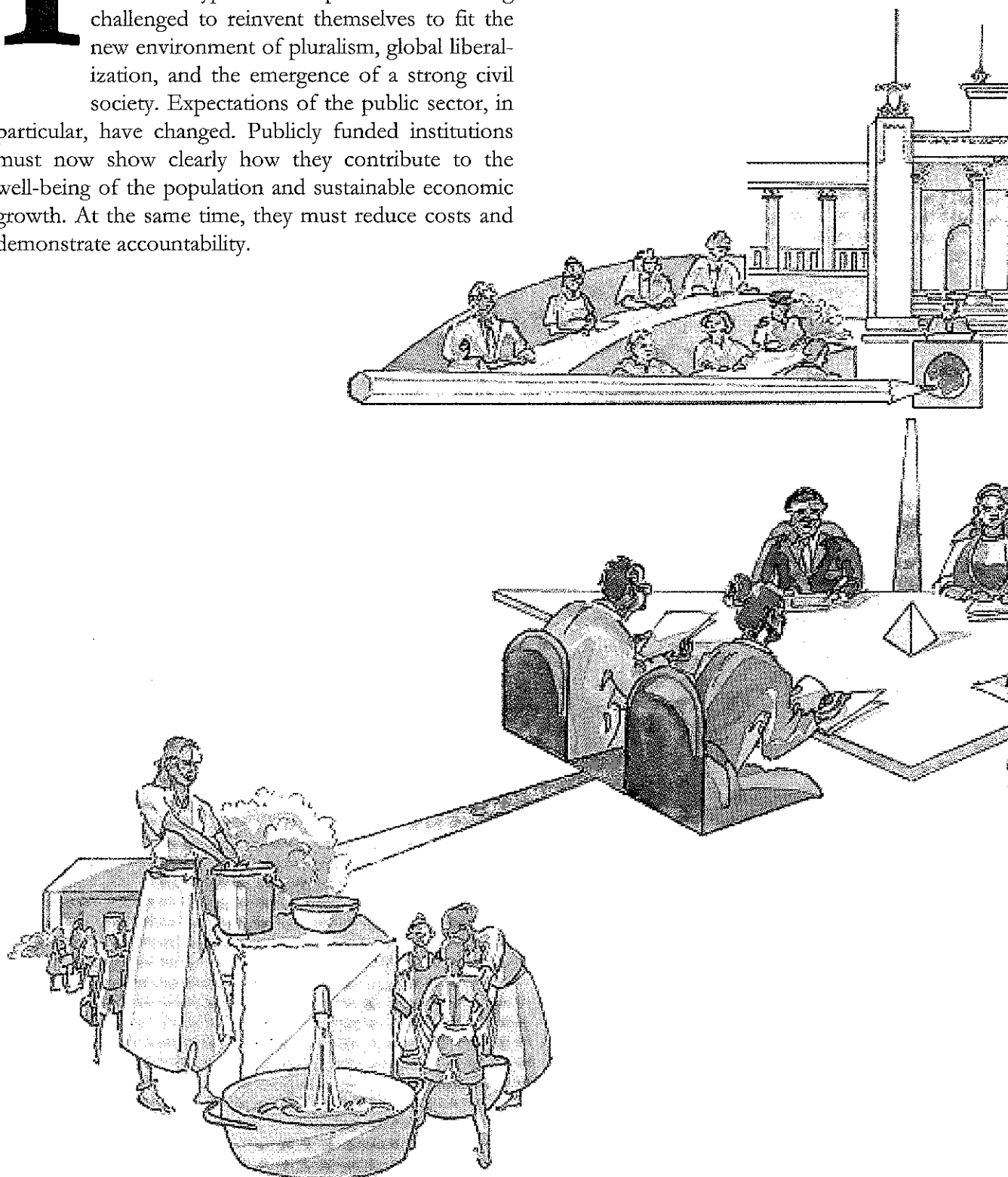
*Not pictured: Yusuf bin Hashim and Maria Nieves Roldan-Confesor.*





# Governance of agricultural research

**I**nstitutional models are products of their times, and the world's political and economic landscape has changed dramatically in the 1990s. All types of enterprise are now being challenged to reinvent themselves to fit the new environment of pluralism, global liberalization, and the emergence of a strong civil society. Expectations of the public sector, in particular, have changed. Publicly funded institutions must now show clearly how they contribute to the well-being of the population and sustainable economic growth. At the same time, they must reduce costs and demonstrate accountability.

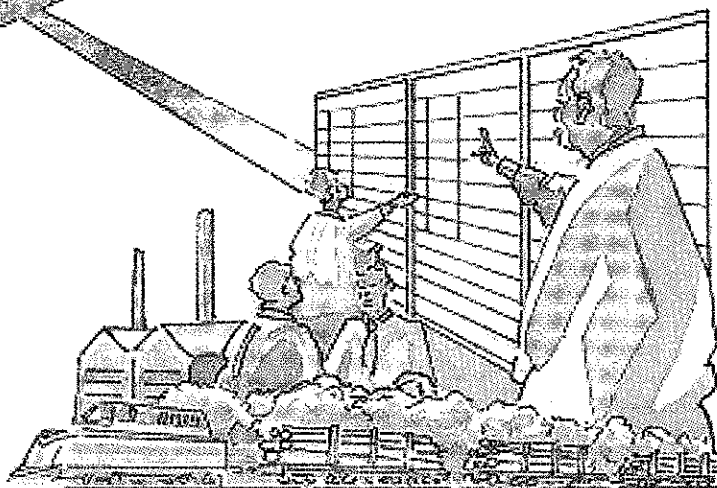
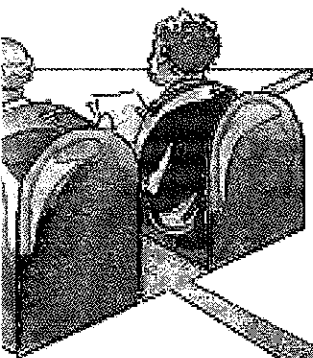
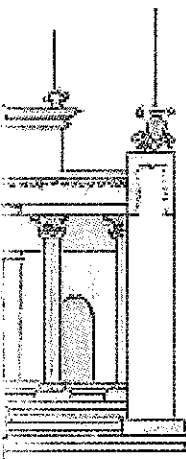


# Shifting roles in decision making

In agricultural research, these trends have led to a shift to broader, more inclusive modes of decision making. Increasingly, clients and other stakeholders are taking active roles in monitoring and, where necessary, changing the way research services are provided. The rationale is that wide participation increases the support base for agricultural research as well as improving the quality of the decisions made.

To improve performance, research institutes are experimenting with new governance and organizational structures. These strive to be more like the private sector in cost effectiveness and responsiveness to client demand. But unlike private firms, the public sector can't rely on profits to prove they have returned "value for money." Management practices are therefore being introduced that aim to provide information on impact and performance. Such far-reaching institutional reform carries risk and controversy, as well as financial and human consequences. These factors combine to place a premium on effective governance.

This essay looks at governance in agricultural research. It first defines governance and describes some of the reasons for its increasing importance. It then discusses three factors underlying current changes in the governance of agricultural research. These are (1) public-sector reform, (2) decentralization and participation, and (3) the broadening of the agricultural research agenda. It then reviews governance mechanisms being used at three levels of agricultural research: at the level of the national agricultural research system (NARS), at the research organization level, and at the regional/international level. The conclusion underscores the need for developing countries to seek novel solutions to questions of governance, accounting for local culture and tradition.



Governance is often portrayed as the triangle of interactions between three societal actors: government, civil society, and the market. Currently, there is a growing awareness that these parties must cooperate to ensure the well-being of populations and to protect the environment.

## Four sub-Saharan countries improve research-user linkages

Linkages between researchers, extensionists and farmers are essential. They ensure effective flows of information from the farm (often via extension) to the laboratory. They can also help bring useful technologies from research organizations to farmers. The quality and types of the linkages determine to a large extent the relevance of research products.

In the final year of an action-oriented project to improve linkages between research, technology transfer, and farmers' associations, national teams in Mali, Senegal, Tanzania, and Zimbabwe put in place linkage planning methods based on studies done by ISNAR since the late 1980s. The objectives of the project were (1) to build a national capacity in the participating countries to identify and resolve problems or weak research-user linkages, (2) to improve methods and guidelines for linkage planning and implementation, and (3) to document and disseminate knowledge, lessons, and experiences about research-user linkages in Africa.

The planning process has had significant impact in the participating countries. In **Tanzania**, for example, the planning approach was supported by the department heads and the principal secretary of the Ministry of Agriculture and Livestock Development. As a result, the procedures will be incorporated into an agricultural investment program formulated by the government and the World Bank. Linkage planning and implementation costs will be included in government and project budgets. In **Zimbabwe**, preliminary linkage planning activities under the project influenced a recent reorganization of the Agricultural Research Council, including its assumption of linkage planning responsibilities. In **Mali**, a linkage monitoring unit was established that oversees the implementation of the country's linkage action plan. The unit is composed of representatives from research, extension, and farmers' organizations. And in **Senegal**, institutions consult each other on a regular basis under the new framework, resulting in better coordinated activities. Also, research and extension now treat the federation of farmers' organizations as a full partner in the technology-generation and transfer process. In three of the four countries, the participating farmers' organizations are willing to contribute resources as a result of agreements reached under the project.

The project was partly funded by the Directorate General for International Cooperation (DGIS) of the Ministry of Foreign Affairs of the Netherlands.

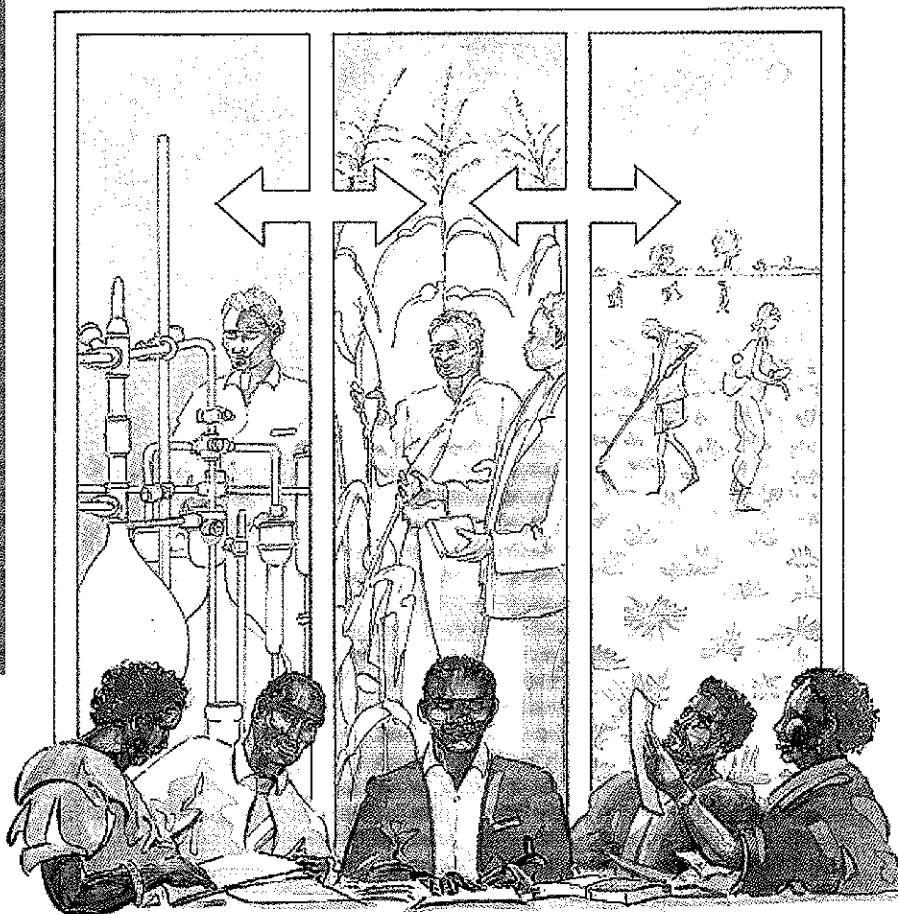
## Concepts of governance

Governance can be defined as the way that a system or organization is guided and steered. As such, it is a critical factor for improving the performance of agricultural research systems and organizations. Governance is the point where external and internal environments meet. It is through governance that the concerns of stakeholders—financiers, clients, staff, and civil society in general—are translated into programs and activities. It is also through governance that the quality of internal processes and institutional products is reviewed.

In operational terms, governance can be seen as the framework wherein decisions are made. Usually hierarchical, governance extends from policy made by government, through to priorities set for the agricultural research system, and then to programming decisions made at the level of the research organization. Effective governance ensures that the interests of relevant stakeholders are voiced at the appropriate level and that stakeholders bring the needed information to the task. Deciding who should participate at each level of decision making is one important aspect. Another is building linkages between the different levels.

### Why focus on governance?

A number of factors have combined to bring governance to the fore in NARS. First, global trends towards democracy and decentralization have led a wave of reform aimed at bringing the state closer to its citizens. All public agencies, including agricultural research, are being challenged to incorporate popular voice and participation into their decision making.



Second, structural adjustment has reduced government resources. This has led to a reassessment of what tasks should be included among the core activities of government. In agricultural research, questions arise as to what types of research should remain in the public domain. Governing bodies must guide the devolution of certain tasks to market actors or civil society organizations.

A third factor is pressure from globalization and liberalization. Institutions must be flexible and proactive to take advantage of opportunities in competitive regional and international markets. National agricultural research, for example, is increasingly confronted with competition from alternate, international technology providers. This has changed the nature of the decisions made in governing agricultural research.

Finally, there is a perception that past development investments have been lost in inefficient bureaucracies and poorly managed public enterprises. Strengthening governance is, in essence, strengthening public management capacity.

## Underlying ideas in agricultural research

Some related ideas underlie current changes in governance of agricultural research. These include public-sector reform, emphasis on decentralization and participation, and the broadening agricultural research agenda.

### Questioning the public-sector status

Governments everywhere—in the developed and developing world—are questioning the public-sector status of agricultural research. Large deficits and structural adjustment have left deep gaps in many state budgets. And theories of public administration suggest that some public agencies would perform better if they acted more like private enterprise in terms of client orientation and operational efficiency. Europe and Latin America, in particular, offer numerous examples of privatization and introduction of market-type reforms to publicly funded agricultural research.

The United Kingdom and the Netherlands, for example, have commercialized their involvement in research. In both cases, government is still the biggest source of funding. However, grants are increasingly awarded on a competitive basis. For example, the state tenders contracts for the research services it needs. Public-sector agencies then compete with private firms for contract awards. In Latin America, Chile and Uruguay are using similar mechanisms to stimulate competitiveness and improved performance in their agricultural research systems.

Relying on market mechanisms to govern agricultural research, however, is more complex in the South than in the North. In developing countries, 50 percent of the population may depend on primary agricultural production for their livelihoods. Most of these are small-scale producers who constitute the poorest and least empowered sectors of society. They have neither the institutional clout nor the economic power to ensure that their technology needs are met by the private sector. Driven by the market, research may tend to focus on the

## Japan and ISNAR conduct Asian training project for managing new technologies

In March, ISNAR launched a five-year project to introduce issues of "new technology" management to the leaders of agricultural research organizations in Asia. The work is supported by the Government of Japan through its Official Development Assistance. ISNAR is implementing it in cooperation with the Japan International Research Center for Agricultural Sciences (JIRCAS). The new technologies on which the project focuses are biotechnology and information technologies. In coming years, every research organization in Asia—and elsewhere—will have to make key decisions on investments in these two areas.

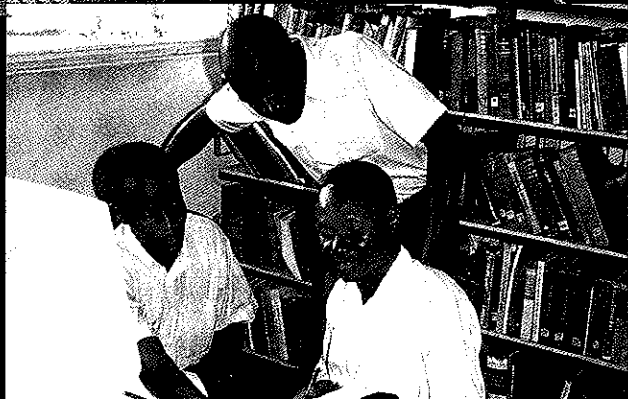
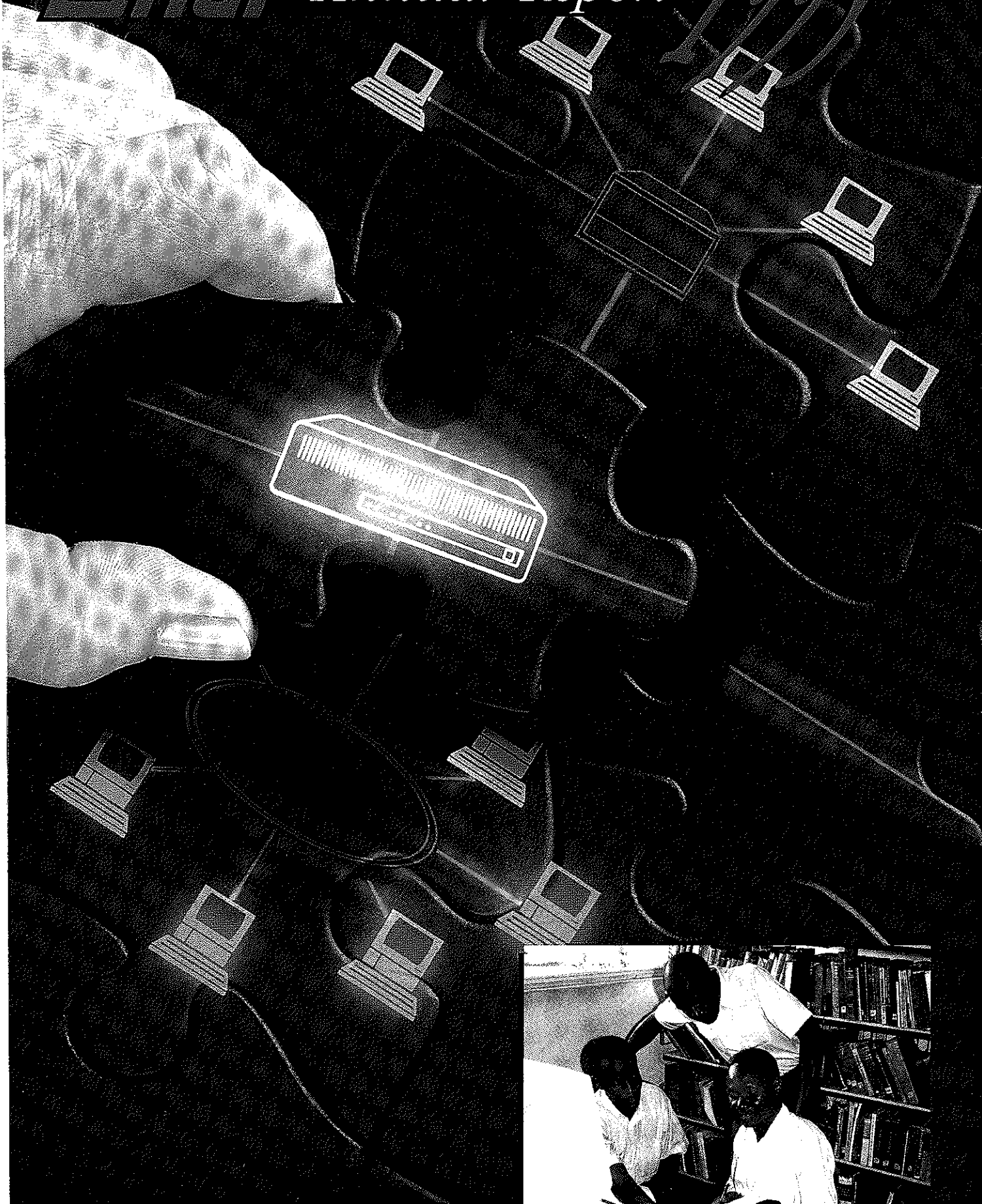
Through a series of short training courses, the project aims to build the knowledge and skills of senior research managers responsible for biotechnology or information technology. The eight countries participating are China, India, Indonesia, Malaysia, the Philippines, Sri Lanka, Thailand, and Vietnam.

Twenty-one managers from Indonesia, the Philippines, Thailand, and Vietnam participated in the project's first training course, entitled "Managing Biotechnology in a Time of Transition." At the two-week event, which was held in Yogyakarta, Indonesia, in November, the participants discussed how to think strategically about biotechnology research programs and implications regarding leadership. They also looked at ways to better manage human, biological, and information resources for these programs, and they examined participants' successful experiences in managing biotechnology.

The second workshop, on information technologies, was held in Hyderabad and New Delhi, India, in December. Participants were 20 senior policymakers from China, India, Malaysia, and Sri Lanka. They explored how national strategies for developing and managing information technology could be formulated, how scientific information programs should be managed, and how networks could be developed. During the 10-day workshop, participants visited Indian centers of expertise on documentation services, distance learning, network management, and training.

International Service for National Agricultural Research

# ISNAR Annual Report



## Scientists must target research to policymakers as well as farmers says conference

Agricultural scientists and governments are increasingly emphasizing better management of the natural resource base. However, there is generally little coordination between researchers and policymakers, which may result in either inappropriate research, ineffective policy, or both. Participants at a November conference in Maastricht, the Netherlands, discussed how the interface between natural resource management researchers and policymakers can be strengthened in order to lead to effective policies for using natural resources sustainably.

The 23 participants came from Belgium, Brazil, Germany, Ghana, Kenya, the Netherlands, the Philippines, and the USA. They identified many reasons for the current poor interface, such as communication barriers, reward systems that do not stimulate cooperation between researchers and policymakers, and the different ways that scientists and policymakers define problems and establish time frames for solving them.

The conference, which was sponsored by the German GTZ, ISNAR, and the European Centre for Development Policy Management (ECDPM), began with a series of case studies to guide the discussions. The main recommendations of the conference were three:

1. Scientists must recognize policymakers as a target user group for their research results. Bringing relevant research to the attention of policymakers is an obligation for all agricultural researchers, not only those working in typically "policy-related" subdisciplines.
2. Although NRM problems are generally very location-specific, there may be merit in locating some activities related to research on resource management close to the policy-making process (e.g., in the capital city). Physical proximity appears to help improve the communication between scientists and policymakers.
3. Policymakers should be encouraged to bring scientists into their inner circle of reform advisors.

needs of the few with economic and political power. The lack of government administrative and regulatory capacity, physical infrastructure, and social services places further limitations on the viability of market processes in many parts of the developing world.

## Decentralization and participation

Top-down pressure from government and donors is pushing research to be more responsive to farmers and agribusinesses. At the same time, farmers and private industry are becoming more vocal in expressing their technological needs. The convergence of these top-down and bottom-up pressures has led to decentralization of agricultural research and a renewed emphasis on participation in research planning.

Decentralization can help bring research closer to its clients. The principle of "subsidiarity" is useful in this regard. Subsidiarity asserts that resources and responsibilities should be devolved to the lowest level at which they can be effectively discharged. Applied to agricultural research, this means that responsibility for certain planning and resource allocation tasks may be delegated to provincial centers and experiment stations. Where local administrative capacity exists or can be strengthened, decentralization can contribute to build more responsive and accountable institutions from the bottom up. But to do this, effective governance arrangements that foster accountability at the local level are needed, as well as an appropriate level of scientific and financial oversight from the center.

Indonesia is one country that has re-examined issues of decentralization in the governance and structure of its agricultural research system. In 1995 the Agency for Agricultural Research and Development (AARD) created 17 new assessment institutes located in outlying areas. Their aim is to better serve the diverse needs of farmers and agribusiness in the countryside. The assessment institutes are now challenged to find ways to give effective voice to technology users in research planning and monitoring. Communication and reporting relations with the national centers must also be built, as well as oversight structures to ensure that this complex network of organizations works effectively as a system.

"Participation" means that those who will be substantially affected by decisions must be involved in making those decisions. It thus presumes a proactive capacity and willingness of all parties to negotiate and debate throughout a planning process. Participatory mechanisms can be grouped into two broad categories: "voice" or "exit" mechanisms. *Voice* gives beneficiaries a say in deciding how services should be delivered. For example, farmers may be voting members of research program committees. *Exit* mechanisms are those that introduce competition in service provision. In other words, beneficiaries can take their business elsewhere if they are not satisfied with the service provided. Nonetheless, experience indicates that it may be easier to set up consultation (voice) than to erect a framework for competition in service delivery (exit).

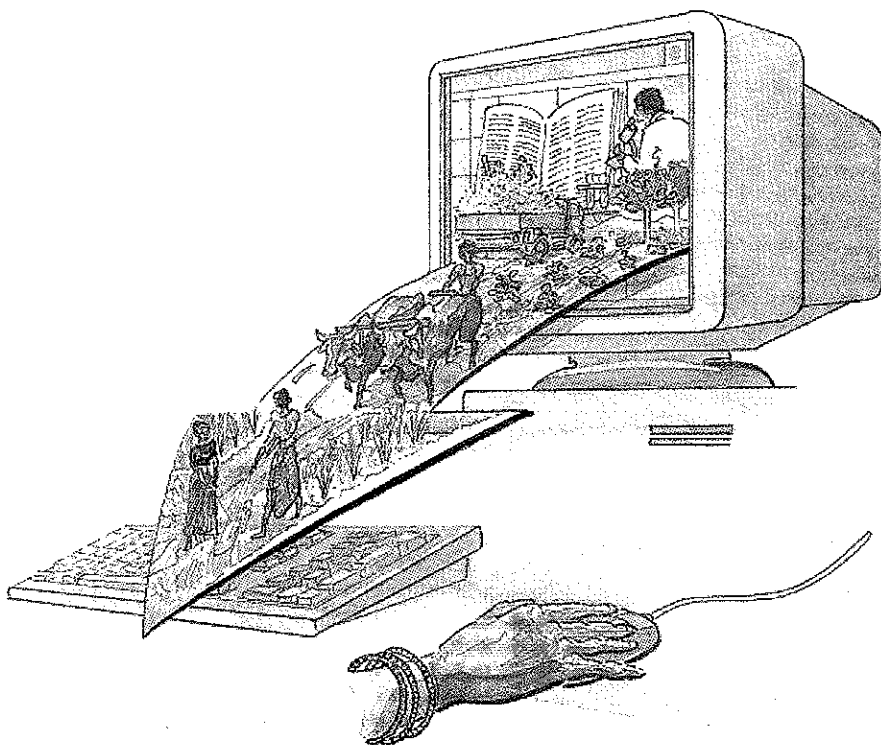
In consultative processes, questions arise as to *whose* voice is heard, at *what* level, and *how* such input will lead to a research agenda that responds to government policy objectives. A dilemma is that well-endowed groups are usually best able to form associations and benefit from them. Making research more responsive to these more

articulate clients risks taking it even further away from other, less vocal groups. Women, for example, will pursue different objectives than men because of their differing roles within the household. If farmer representation is predominately male, the perspective of women may be neglected and the research agenda formulated is likely to subordinate women's concerns. Alternative means may be required to ensure that the voice of underrepresented groups, such as women and resource-poor farmers, are heard in participatory processes.

Zimbabwe is a country with strong farmers' organizations, including the Zimbabwe Farmers' Union (ZFU), a large union representing smallholder farmers. Nonetheless, the more influential organization is the Commercial Farmers' Union, which represents the large-scale, commercial sector. This is because the ZFU has a much more diverse membership and therefore has more difficulty in organizing, assessing, and articulating its members' needs. Unequal relations and cultural differences among members are part of the problem. Difficulties may arise, for example, when village women are expected to voice their opinions in large assemblies. Real consultation with women may demand house-to-house visits or small-group, all-woman gatherings.

It is at the level of agricultural research programming and monitoring that farmer participation is most likely to be meaningful. Maintaining an ongoing dialogue with farmers' groups is one way of bringing the voice of farmers into research planning. Another is to strengthen the skills of farmers' organizations in needs assessment and advocacy. Working together to build this type of capacity can create a synergy between research and farmers to articulate and solve future problems.

The Zimbabwe example raises important issues of institutional capacity to incorporate voice in governance at the programming and planning level. First, special skills are required to lead processes of negotiation and consensus-building. Second, the capacity of some actors to contribute meaningfully may need to be strengthened. Finally,



## ISNAR takes virtual leap onto the information superhighway

ISNAR took a virtual leap in 1997, expanding its site on the World Wide Web global electronic network. Starting out with a modest five pages in October 1995, ISNAR's Web site has now grown to a 375-page, multilingual, and much-consulted source of information on a wide range of ISNAR-related topics. Statistics show that visitors from all over the world accessed ISNAR's Internet pages nearly 100,000 times in 1997.

**Publications.** One of most frequently visited items is ISNAR's Catalog of Publications. The catalog lists all of ISNAR's hard-copy publications, as well as electronic publications that can be downloaded free of charge from the Web. Every new ISNAR publication is now published simultaneously in paper and electronic versions, with the electronic version directly accessible on the Web. ISNAR has also posted its training modules on the Web. The response has been overwhelming. The growing number of people who download the modules from the Web significantly reduces ISNAR's mailing and administration costs for these materials. A full list of ISNAR's publications on the Web is on page 30 of this annual report.

**Directory of agricultural research organizations.** Another popular item is ISNAR's directory of Agricultural Research Organizations on the Web (AROW). This electronic directory currently contains links to some 1100 agricultural research institutions in over 80 developing and developed countries—and more are added every month.

**Hosted home pages.** ISNAR also hosts, at no charge, home pages for agricultural research institutions in countries where Internet access is difficult or unreliable. Currently hosted home pages include those of agricultural research organizations in Fiji, Mauritius, Suriname, and Uganda.

**Discussion forum.** ISNAR began an experiment this year with two e-mail discussion fora: one on biotechnology and another on priority setting for agricultural research. The first step in developing the fora was setting up home pages on biotechnology and priority setting for ISNAR's Web site. The purpose of the initiative is to provide developing-country agricultural researchers and managers with fast access to information in these areas and to give them an opportunity to ask questions and to exchange views and experiences. Both the Web pages and the e-mail fora have generated a modest but encouraging response. Initially developed as a one-year trial, the project will begin its second phase in 1998.

**Catering to fast and slow connections.** ISNAR operates not only a regular site with spiffy images and photos, but also a "text-only" site, without the thrills and frills that can make browsing a Web site time (and money) consuming.

## "Universities in NARS" project completes country studies

With a five-day international workshop in Benin in November, the project "Strengthening the Role of Universities in NARS in Sub-Saharan Africa" completed its six country studies, which were begun in 1994. Through national workshops in Benin, Burkina Faso, Côte d'Ivoire, Nigeria, Uganda, and Zimbabwe, the studies confirm universities' high potential for conducting development-oriented agricultural research. The studies also show that universities can draw on a larger and more varied pool of human resources than many agricultural research institutes. They may also have superior physical resources, such as laboratories and equipment.

At the same time, however, the studies revealed that most university research is done independent of national agricultural research priorities and plans. Further, universities often have no specific budget for research; they are not mandated to conduct research to contribute to development; they rarely systematically plan, coordinate, monitor, and evaluate their research; and linkages between universities and farmers are poor or nonexistent. The studies also showed very limited collaboration between universities and the diverse components of the NARS. This is mainly because no explicit linkage policy exists, information about national research activities and resources is lacking, and there are no incentives for university staff to work jointly with researchers outside the university system.

Steering committees that were established in the six participating countries are now implementing action plans that they hope will resolve some of these issues. Making the universities' research mandate more explicitly development-oriented is one of the tasks planned. Others are to allocate university resources to agricultural research and to make senior managers responsible for coordinating research. To improve linkages between the universities and the other institutes in the NARS, a national agricultural research policy may be formulated to address linkage concerns and ensure that universities are represented in different decision-making bodies.

The universities project received praise from the participating countries. H.F. Nouwakpo, former advisor to the minister of rural development in Benin, says that the project "has been instrumental in creating a mutual understanding between INRAB [the national agricultural research institute] and the university, and it contributed to renewing the interest from the university in participating in the national programs of the Ministry of Rural Development."

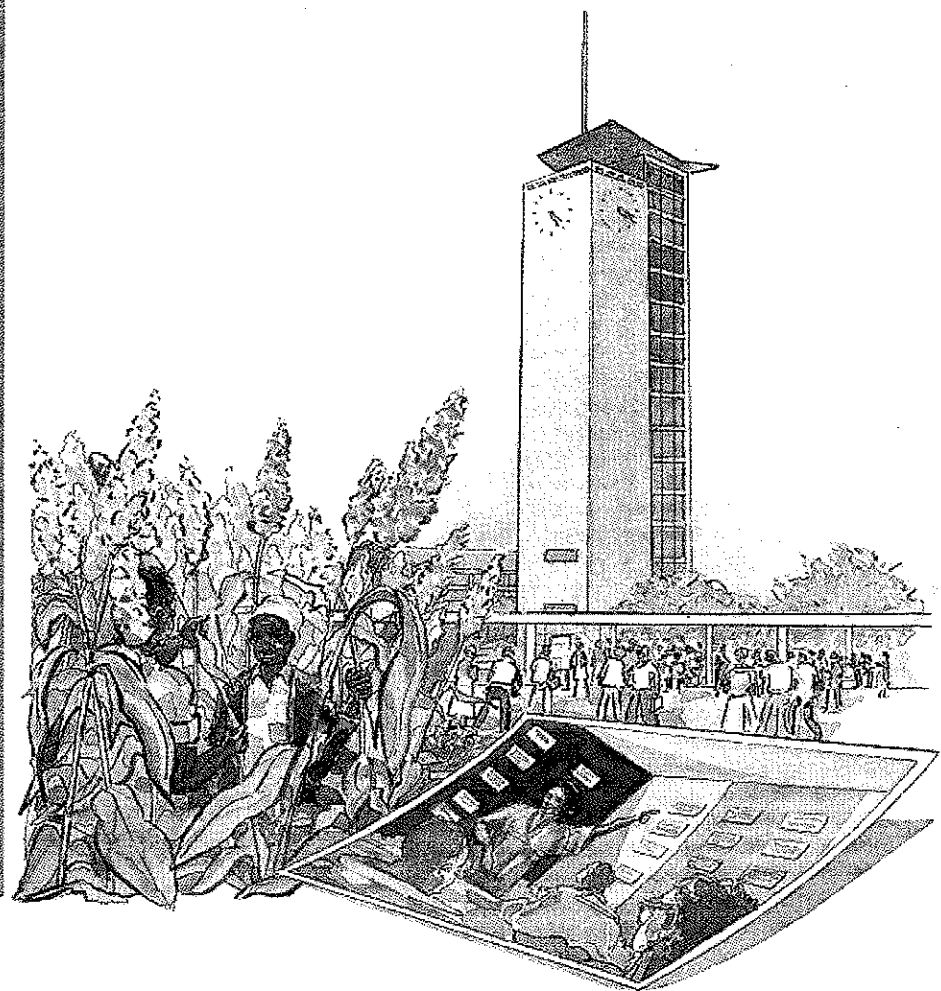
ISNAR's work in the Universities in NARS project was supported by the Federal Ministry of Economic Cooperation of Germany, the German Foundation for International Development (DSE), and the Technical Centre for Agricultural and Rural Cooperation (CTA).

participatory models that evolved over decades in some industrialized countries won't arise overnight in other cultures. At the minimum, a vocal, educated public is required. This implies that investments in social capital may be needed.

## The broadening research agenda

The broadening agricultural research agenda presents new governance issues as well. Agricultural research now encompasses social, economic, and environmental objectives, as well as production goals. To address these dimensions adequately requires government policy decisions as well as the input of a growing number of stakeholders at the community level. The site-specific nature of resource management problems, for example, requires government policy on resource use and conservation as well as community involvement. Environmental problems, too, must be approached from a broad, social perspective.

The use of modern plant breeding and biotechnology techniques has focused public scrutiny on agricultural and biological research. This has affected organizations in both the public and private sectors. Pressure from consumer and environmental groups has resulted in a growing body of government regulation; and formalized international systems for governance of genetic resources are likely to follow. At the level of research programming, protection of intellectual property rights (IPR) has led to an increased role of the private sector in some types of research work, such as plant breeding. This could free public-sector resources to concentrate on more difficult and long-term tasks aimed at poverty alleviation, natural resource management, and environmental protection.





## Governance mechanisms: examples and innovations

The previous sections focused on some of the ideas underlying changes in governance of agricultural research. This section relates some examples of governance structures and mechanisms being used in agricultural research at three levels: the NARS level, the research organization level, and the regional/international level. In fact, mechanisms discussed at one level may, with some modification, be applicable at other levels as well.

### Governing the national agricultural research system

At the level of the NARS, governance is complicated by the multiplicity of research organizations with different mandates and stakeholders. The public-sector agricultural research organization often reports directly to the ministry of agriculture and has the mandate of producing technologies for the farming community. Universities and, more specifically, their faculties of agriculture, may report to a different ministry (such as higher education) and have a strong education mandate. Similarly, advanced research institutes and national and international NGOs may be active in agricultural research. But they generally operate independently, with their own mandate and governing bodies. In short, few countries have governing bodies able to exercise authority over this diverse set of actors in the NARS.

There are some notable exceptions, however, one of which is Costa Rica. That country has achieved a coordinated system of organizations working together to achieve agricultural development objectives through several mechanisms. First, it established a governing body in the form of a national commission for agricultural research and technology transfer. Second, it created planning committees with farmer representation to coordinate work done on a specific commodity or production factor. Third, it established a foundation to raise financial support for agricultural research. Perhaps the most striking feature of this example is that participation in the system is voluntary. This shows that institutes may be willing to trade some of their autonomy in order to gain influence in policymaking and increased legitimacy with stakeholders.

Experience with apex bodies for governing agricultural research has, thus far, been mixed. Nonetheless, if appropriately structured, they may be able to guide the national research system and help determine the right balance between public- and private-sector involvement. There are various forms of apex bodies, including agricultural research councils and research corporations.

**Agricultural research councils.** A number of large countries with complex research systems have established agricultural research councils to coordinate the work done in their various research institutes. The operation of these governing councils differs widely. In some cases, they have moved beyond a policy and coordinating role to undertake research themselves. In others, they do not have sufficient power or resources to function effectively. In both situations, however, it's becoming increasingly clear that national agricultural research may not be as well served by such bodies as was intended. Particularly in Asia, where a number of agricultural research councils have been created—often with considerable external support—they have (with

### Chilean NARS sets research priorities in its biotechnology program

In November 1998, ISNAR, INIA-Chile, and the Swiss Federal Institute of Technology concluded a project to develop and test an analytical tool for use by national policymakers and researchers in setting priorities in Chile's agricultural biotechnology research program.

The priority-setting approach used was the analytic hierarchy process (AHP). AHP is a way to break down a complex problem into a hierarchy of smaller, simpler problems. It can be applied in a highly participatory manner because the process does not require a strong disciplinary background of participants.

In Chile, participants used the AHP model to evaluate the potential impact of proposed projects, gauge the chances of research success, and estimate the extent of farmer adoption of resulting technologies. With this information, they determined which biotechnology projects should be given highest priority. The participation of researchers, research managers, subject-matter specialists, and project leaders during the decision-making process ensured broad acceptance and ownership of the priorities identified. It thereby increased the potential impact of the research program.

some notable exceptions) failed to live up to expectations. Instead of streamlining research, avoiding duplication, and guiding the system with strategy and vision, they have sometimes become an additional bureaucratic layer that may impede, rather than facilitate, effective technology generation and dissemination.

**Research corporations.** The “corporate” model of agricultural research is one way through which agricultural research can adjust to the growing prominence of the private sector and the impact of structural adjustment. Emerging from Latin America, this model is seen by many to represent a new paradigm of stakeholder ownership in agricultural research—the willingness of stakeholder groups to contribute funding is linked to their participation in decision-making. Government remains the primary source of finance. However, public-sector reforms (often quite radical) have brought these institutes closer to the private sector with respect to organization, management, and employment practices. The aim is to make agricultural research an attractive investment for government, farmers, and the private sector. Commercialization of research results, increased farmer involvement, competitive funding schemes, and wholesale privatization are all part of such reforms.



## When NARS retool

### Strengthening agricultural research institutions to meet 21st Century challenges

#### *ISNAR's new strategy for 1998–2002*

In 1997, ISNAR drafted a new institutional strategy. The process was participatory, under the guidance of ISNAR's new director general and supported by the Board of Trustees. It was led by staff with input from partners and other stakeholders in both developed and developing countries. Together they looked to the next century, the start of a new millennium, at the challenges and opportunities likely to face agricultural research in developing countries. The resulting strategy reaffirms ISNAR's unique role in institutional development for agricultural research. It defines ISNAR's niche as working with research leaders and policymakers to solve problems on the forefront of agricultural research policy, organization, and management. It also describes four problem-oriented thrusts on which ISNAR will focus its work in the coming years.

#### *Strategic objectives*

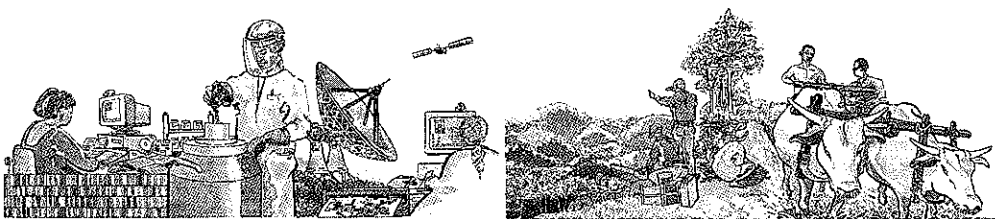
ISNAR defined three strategic objectives for its work, based on an assessment of the external environment, trends in the NARS and the CGIAR, and its own strengths and limitations:

1. enhancing the capacity of national agricultural research organizations and systems to respond effectively to their clients' needs and to emerging challenges
2. expanding global knowledge on agricultural research policy, organization, and management
3. improving access to this knowledge

All ISNAR activities will be designed to contribute to these objectives and to the higher-order goals of the CGIAR: food security, poverty alleviation, and environmental sustainability.

Uruguay, for example, has introduced some aspects of the corporate model. In 1989, it established a competitive funding scheme, managed by the national agricultural research organization (INIA), through which the government now funnels almost one-third of the national budget for agricultural research. The so-called agricultural technology development fund has been heralded as a model of client orientation and effective resource use. Money for the fund is provided not only by government, but also through a farm tax and membership fees paid by farmers' and other organizations. In INIA's experience, farmers' contributions have raised their awareness of research activities—they are increasingly interested in how their money is being spent. In addition to discussing their concerns with scientists, many are now willing to participate in working groups that plan and review agricultural research programs and priorities.

The Colombian *Corporación de Investigación Agropecuaria* (CORPOICA) is another institute that, since 1993, has worked to broaden participation in funding and governance of agricultural research. Local and national government contribute funding, as do farmers' organizations and private enterprise. All are represented on CORPOICA's board and in national and provincial planning meetings. CORPOICA has



## When NARS retool

### **The Four Thrusts**

**Thrust 1. Globalization and Its Implications for Agricultural Research.** Work under this thrust will look at how NARS (or groups of NARS) can adjust their policies and research activities in light of changing conditions of competition in international markets and new opportunities to exchange technologies and knowledge.

**Thrust 2. Governance and Management of Institutional Change.** Work on governance will focus on (1) development of improved mechanisms to allow stakeholders, including women, to influence the research system; (2) design of appropriate feedback mechanisms to stakeholders; and (3) analysis of internal governance mechanisms within the research system. Change, in itself, is a challenge to organizations, both public and private. From the viewpoint of organizational and management theory, ISNAR will expand its knowledge on processes of change in NARS and offer guidelines, concepts, and tools to facilitate institutional change and development.

**Thrust 3. New Technologies for Agricultural Research.** The drive to capitalize on new technologies requires new responsibilities and expertise from policymakers, research managers, and scientists. Against this background, ISNAR will examine how policies for human resource development are modified in light of new technologies, particularly biotechnology and information technology, how legal frameworks are established for the protection of information and innovations, and how decisions are made to adopt or reject a new research tool or technology.

**Thrust 4. Agriculture and the Environment.** ISNAR's work in this area will take a cross-sector approach, developing planning tools and analyzing the management problems posed by research on production factors (such as soil and water). It will look at ways to integrate nonagricultural resource users in the planning and evaluation of agricultural research programs.

## KARI develops procedure for priority setting in NRM research

The Kenya Agricultural Research Institute (KARI) finalized guidelines for setting priorities in its natural resource management (NRM) research programs. The guidelines were developed through a pilot priority-setting exercise in KARI's Soil Fertility and Plant Nutrition Research Program. They are based on the methodology for commodity program priority setting that KARI designed in 1995 in collaboration with ISNAR. To account for resource management concerns, the method was oriented more specifically to farming systems. It identifies, analyzes, and classifies the production systems used by farmers within the zones targeted by the research program.

Because of the site-specific nature of NRM problems, strong participation of a broad group of stakeholders is needed in priority setting for NRM research. In ISNAR's work with KARI, stakeholder participation was achieved via a priority-setting working group. This group comprised scientists from the research program and representatives from various partner organizations. Farmers were involved through participatory rural appraisals and other methods for identifying and analyzing constraints. The priorities resulting from the exercise are verified by stakeholders, broadly defined, in a workshop at the completion of the priority setting.

KARI is already implementing the results of the priority setting and is adapting the procedure to fit the organization's structures and processes. KARI's Crop Protection Program is drawing on the experience and has decided to use the zonation scheme and description of production systems that was developed by the Soil Fertility Program in its own priority-setting work. A recent review suggests that at KARI, the uptake of new priority-setting procedures has depended on achieving consensus on the need for the procedures and strengthening the skills to use them at different levels of the organization.

ISNAR's priority-setting work with KARI was supported by the United States Agency for International Development (USAID) and the Rockefeller Foundation.

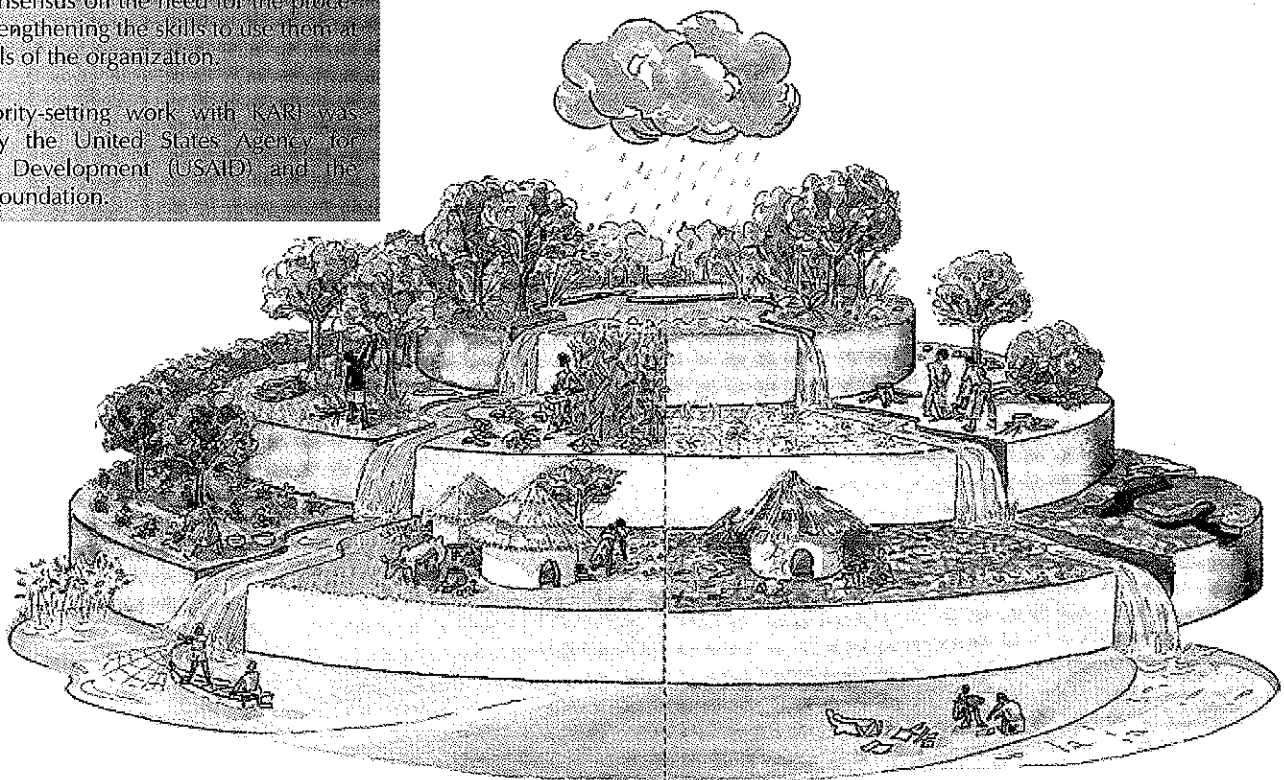
experienced difficulties in these reforms, however. First, there are indications that the influence of private-sector partners has grown faster than their monetary contributions. Second, questions of the sustainability of membership fees also remain.

**Consolidated funding mechanisms.** The idea of consolidated funding mechanisms as a governance structure has been promoted with limited success by the Special Program on African Agricultural Research (SPAAR). Under this system, an approved core program receives approval of financiers (including the country's government) and is funded accordingly. Financiers agree to monitor and evaluate the program together, rather than each one conducting their own reviews and assessments. Few donors, however, have accepted the idea of core funding for NARS. Most insist on supporting a specific project or parts of programs. The result has been that parts of the agreed-upon national program are left underfunded.

## Governance at the research organization level

Governing boards, financial management and auditing, external reviews, and performance contracts are some of the standard tools of governance found in public-sector institutes throughout the world. Used together, these can bring an institute a long way towards achieving improved performance and accountability.

**Governing boards.** Governing boards tend to be the top level of decision making. Through their membership, they also provide the link between the organization and its external environment. While the specific roles of boards vary according to culture and national historical circumstances, they usually include five functions: (1) providing strategic guidance to management, (2) ensuring that the organization fulfills its mandate, (3) seeing that the organization complies with statutes and regulations, (4) accepting ultimate financial responsibility for the organizations' affairs, (5) recruiting the director of the organization.



Yet in national agricultural research, it is often at this level that leadership breaks down. Many public research organizations have no governing boards. This is most often true when research is operated as a department under a ministry. Organizations with some autonomy are more likely to have a board. But even then, the boards may be so unstable or bureaucratic that they exercise no real decision-making power. In some cases, boards may be composed of high-level civil servants who are too busy to attend meetings. They may delegate their attendance to junior officers with limited authority. Finally, boards are often so constrained by civil service regulations or institutional agendas that they have no scope for effecting substantial change.

Efforts to improve board performance often begin with attempts to reconstitute their membership. South Africa, for example, revamped the board of its Agricultural Research Council (ARC) in 1997 to help guide a reorientation of its research program. Rather than civil-servant appointees, members are selected on the basis of personal merit. Strong abilities in management and science-based business are among the selection criteria, as well as pursuance of a gender balance. ARC is considering further board reforms as well, such as the introduction of board self-evaluation. Such appraisals are increasingly used by private corporations in industrialized countries. Articles recently published in the *Harvard Business Review* advocate board self-evaluation as a means of clarifying the individual and collective roles and responsibilities of directors.

An ISNAR study of policy and financial instability in Nigeria revealed that frequent changes in board membership are a major factor undermining research institute performance. The changes were the result of dissolution and reconstitution of boards, rather than voluntary exit of individual members. Unlike private firms, which have boards with open-ended, overlapping terms, the research organizations tended to have fixed non-overlapping tenures for their board members. This mode of appointment and removal jeopardizes the accumulation of institutional memory and leaves a void in leadership and financial accountability.

Finally, farmer representatives are being appointed to the boards of agricultural research organizations in increasing numbers. This is a classic example of a voice mechanism whereby clients play a role in decision making. Nonetheless, questions remain as to whether meaningful involvement of resource-poor farmers can be achieved by this means. Experience suggests that there may be more effective ways to articulate the needs of these groups in decision-making fora. This is because the young, activist farmers who often lead the poor farmers' movements may mistrust government organizations and feel inadequate discussing scientific matters. Alternatively, if the farmers on the board are large-scale commercial producers, their influence could take research further away from a focus on poverty or environmental concerns.

**Financial management and auditing.** Financial management and auditing go beyond the public-sector accounting that has typified many government research institutes. Rather, it can be seen as using practices of accounting, control, and reporting as tools for result-oriented management. According to this approach, institutional performance can be improved by documenting the products delivered, as well as

## Joint project with Iran begins with formulating policy framework

ISNAR and the Islamic Republic of Iran began a cooperative program in October to strengthen research management in the Iranian NARS. The initial phase will last for three years, ending in 1999. Activities are being implemented in collaboration with the country's Agricultural Research, Education, and Extension Organization (AREEO). The Iranian Government is both a member of the CGIAR and a core donor to ISNAR.

Specific activities in the ISNAR-AREEO cooperative program will include development of AREEO's next medium-term plan; the organization of a national forum for agricultural research; development of an information management system; and capacity building in training, for example, in the areas of research planning, management, technology transfer, and monitoring and evaluation.

## Latin American organizations develop strategic plans and integrated PM&E systems

In a unique participatory mode, two agricultural research institutes and one national agricultural R&D system in Latin America this year prepared strategic plans and integrated planning, monitoring, and evaluation (PM&E) systems. This was a major step in the sixth year of the regional project "Strengthening Planning, Monitoring, and Evaluation of Agricultural Research in Latin America and the Caribbean."

The agricultural research institutes IDIAP of Panama and FONAIAP of Venezuela and the National System for Agricultural Science and Technology (SINCITA) of Cuba are the first to prepare strategic plans and fully integrated PM&E systems for agricultural research. Together with Costa Rica, they act as pilot cases for the current, second phase of the project.

The institutes developed a framework for designing and implementing integrated PM&E systems in collaboration with Brazil's national research organization EMBRAPA and Argentina's INTA during a regional workshop held in Brasilia in March. To ensure the successful establishment of the PM&E systems, 17 management trainers from the region prepared two Spanish-language modules for the project's series of training materials—one on managing institutional change and another on management information systems.

Project staff, trainers, and collaborators from the four participating countries then trained 600 national research leaders and managers at several national events organized by participating organizations, using training materials they prepared themselves. Thus, substantial capacity was built in the region to manage change, do strategic planning, and design and implement PM&E systems.

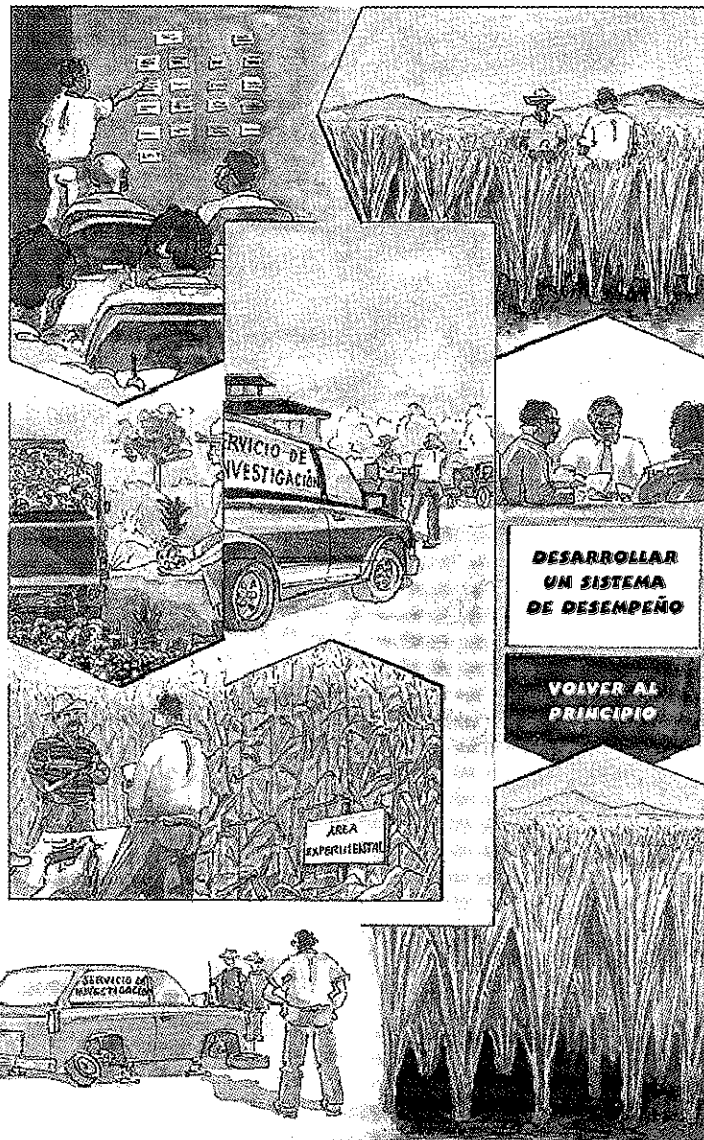
An approach of "collective construction and appropriation of knowledge" and a strategy of "institutional exchange of capacities" have influenced this joint effort between ISNAR and its partners. The approach strives to add collective value to project activities and products. The strategy aims for cost-effectiveness in the collaboration and relevance to institutional realities in the region.

The project is supported by the Inter-American Development Bank, the Swiss Agency for Development and Cooperation, and collaborating organizations in the region.

their related costs. Information on past costs and outputs feeds into future decisions on resource allocation. Use of standardized procedures facilitates comparison of costs and outputs across organizations. Management therefore becomes more transparent, and stakeholders gain insight into organizational efficiency and effectiveness.

Auditing, too, serves an oversight and accountability function. It is essentially an independent check that management's representation of the financial performance of the institution is a fair one. Auditing is gaining importance in the governance of public agencies. It fosters confidence in the institution by providing independent opinion on (1) the information that members of the governing body receive, (2) the managerial practices in use, and (3) institutional reports to stakeholders about performance. In its "comprehensive mode," auditing goes beyond the traditional purview of the financial statement, extending to matters of social relevance, institutional efficiency, and performance.

**External reviews.** In an external review a panel of experts studies a particular organization (or program or project) to evaluate its performance and make recommendations for improvements. For stakeholders, the value of this mechanism is that a knowledgeable group of persons from outside brings a fresh, insightful view to the activities under review. External reviews have long been used by the



international research centers under the Consultative Group on International Agricultural Research (CGIAR) to combine expertise and a neutral perspective in performance evaluation.

## Governance at the regional and international levels

At the regional and international levels, a number of new fora are emerging for governing agricultural research. These range from professional associations and networks for exchange of scientific information, to fully integrated agricultural research programs, such as regional research institutions. Proponents of regionalization point to its ability to enhance research performance by achieving economies of scale and wider geographic coverage, critical masses of resources, and increased sharing of experience and technologies. Regional bodies also provide a focal point for donors whereby external support to research might increase.

However, experience shows that capturing these benefits is not easy. This is, first, because regional initiatives imply shared sovereignty in decision making. Decisions are made through consensus and negotiation. The final result will therefore not always reflect what each individual member (or their national stakeholders) considers the best alternative. Second, transaction costs may be quite high in regional efforts. These include time and resources used to plan and manage the initiative, as well as inefficiencies in resource allocation stemming from other members' objectives being taken into account. Third, national "ownership" of regional activities has proven difficult to achieve. This means that results may not be readily used by national-level research programs. Fourth, uncertainty of resource allocations at the regional level may pose coordination problems with national-level research planning. As such, regionalization may contradict some of the benefits of bringing research closer to its local-level clients. Finally, national representatives to regional bodies may be unable to reflect the breadth of stakeholder views, nor do they have the legal authority to make some of the decisions required.

At the international level, the CGIAR offers an example of increased stakeholder involvement in its governance. Representatives of developing-country NARS have gained influence in guiding the CGIAR agenda and priorities. In the past, such input has been seen as technocratic and top down. But now a bottom-up element has been added in the form of regional and global NARS fora. The NARS global forum convened for the first time in 1997, bringing a broader stakeholder perspective to discussions of the future program of the CGIAR. Such input can be seen as the application of participatory approaches at the international level.

## Conclusion

Governance has always been a critical factor determining the performance of an agricultural research organization or system. But it is now receiving increased attention due to the dramatic changes taking place in the institutional environment. The shifting roles of the market, government, and civil society have led to a reexamination of the responsibilities of each. Public-sector reform has put a new premium on transparency, accountability, and performance of agricultural research. Emphasis on decentralization and participation is driving

## Study evaluates linkages between research and markets

Sub-Saharan countries have experienced major changes in their agricultural markets as a result of economic reform, globalization, urbanization, and changing demand for traditional export commodities. These changes have important implications for the focus and operation of agricultural research. To find out more about these implications, ISNAR and the UK-based Natural Resources Institute (NRI) initiated a project entitled "Strengthening Research Linkages with Agricultural Markets in Sub-Saharan Africa." In 1997, ISNAR and NRI conducted three country studies to assess how market considerations are incorporated into agricultural research strategies.

In close collaboration with national researchers in Mali, Zimbabwe, and Uganda, each of the studies reviewed three to four subsectors and their associated research support services. Results of the case studies revealed the key role played by the overall orientation and culture of the research system. If research is genuinely need-driven—that is, if systems such as participatory planning, regular needs assessment, monitoring and evaluation, and strong research-extension linkages are in place—then researchers will inevitably encounter market-related issues as they strive to understand farmer decisions and technology preferences.

Capacity to interpret market influences is also important. Here, social scientists can play a role. But there are tools for analyzing market trends that natural scientists can use too. With these tools, even NARS with limited social science capacities can integrate market considerations into their decision-making processes. The project's preliminary findings recommend the adoption of a broader commodity-systems approach to research, broader participation in decision making, and discerning use of social science resources in the NARS. The work was funded in part by the UK Department for International Development.

## ISNAR builds knowledge base on participatory approaches

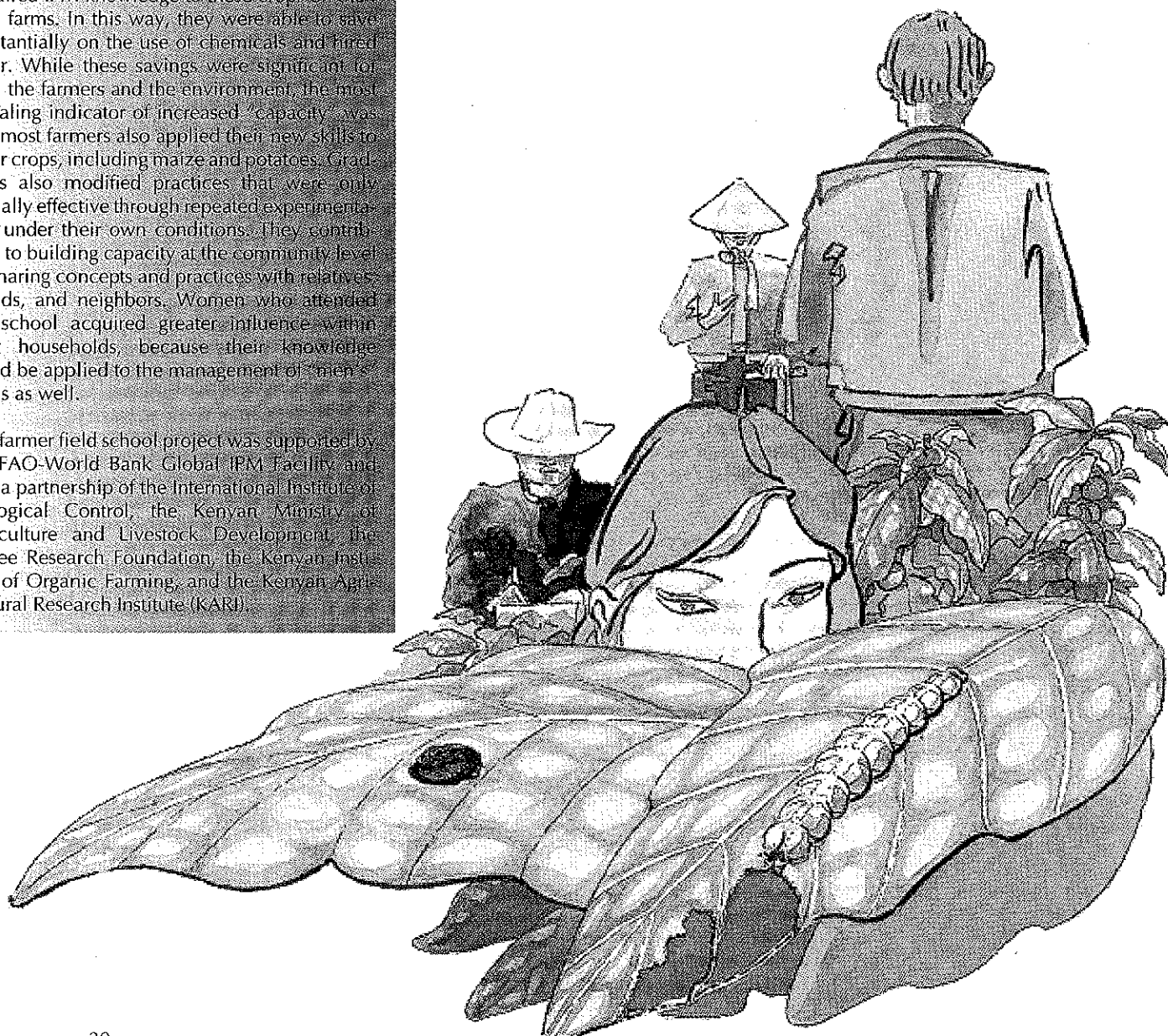
The term "capacity building" is widely used but seldom rigorously defined or assessed. Therefore, ISNAR set out to define and measure capacity building by evaluating the impact of a project to build farmers' capacities in natural resource management. The project evaluated was an attempt to adapt the "farmer field school" methodology to East African culture and conditions. Developed in Asia, the farmer field school seeks to build the capacity of smallholder farmers to practice integrated pest management (IPM) through discovery-based learning, regular field observation, and experimentation. The evaluation is part of a continuing effort to build ISNAR's knowledge base on participatory approaches to agricultural research.

The evaluation team defined capacity as "the ability to make better decisions and to do so in situations beyond those in which the learning occurred." In the field school, farmers learned how to apply IPM to coffee and vegetables, crops usually heavily treated with pesticides. Farmers graduating from the "school" applied their newly acquired IPM knowledge to these crops on their own farms. In this way, they were able to save substantially on the use of chemicals and hired labor. While these savings were significant for both the farmers and the environment, the most revealing indicator of increased "capacity" was that most farmers also applied their new skills to other crops, including maize and potatoes. Graduates also modified practices that were only partially effective through repeated experimentation under their own conditions. They contributed to building capacity at the community level by sharing concepts and practices with relatives, friends, and neighbors. Women who attended the school acquired greater influence within their households, because their knowledge could be applied to the management of "men's" crops as well.

The farmer field school project was supported by the FAO-World Bank Global IPM Facility and was a partnership of the International Institute of Biological Control, the Kenyan Ministry of Agriculture and Livestock Development, the Coffee Research Foundation, the Kenyan Institute of Organic Farming, and the Kenyan Agricultural Research Institute (KARI).

research closer to its clients in an attempt to improve the relevance of research results. At the same time, a new public-sector agenda for agricultural research is emerging that is increasingly concerned with poverty alleviation, resource management, and protection of the environment. These require policy decisions that affect society at large.

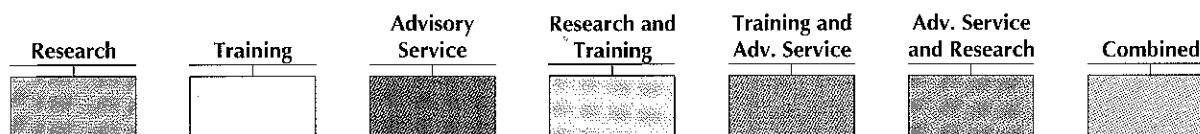
For agricultural research, the challenge is to introduce governance mechanisms that incorporate the voice of relevant stakeholders at the most appropriate level of decision making. This essay has highlighted some of the approaches to governance most widely used in industrialized and developing countries. However, each developing-country environment is unique. This requires innovation in governance. It also underscores the need to seek novel solutions that take account of local culture and tradition.





# ISNAR Activities in 1997

This table lists ISNAR activities in 1997 according to region and country. For some activities, special institutional collaborators and donors are mentioned, but none of these projects would have been possible without the continued support of ISNAR's unrestricted core donors. These donors are listed at the bottom of each page. ISNAR integrates research, advisory service, and training in its work to strengthen developing-country NARS. Activities are color-coded to indicate their focus as follows:



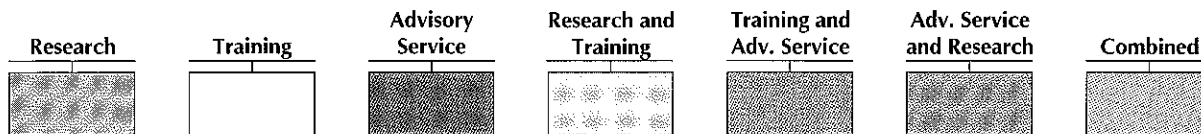
Region/ Country	Activity	Donors and Collaborators
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## Asia and South Pacific

Bangladesh	<b>Training in performance assessment:</b> trained administrative managers to train supervisors (assessors) in carrying out staff assessment. Objectives included clarifying the assessment process (goals, responsibility, criteria) and evaluating assessment exercises for future improvement	USAID World Bank Bangladesh Morocco Senegal Uganda
China, India Indonesia Malaysia Philippines Sri Lanka Thailand Vietnam  India	<b>New technologies:</b> began five-year training project in collaboration with JIRCAS with a focus on managing new technologies in two areas: <ul style="list-style-type: none"> <li>• biotechnology—with a two-week training course in Indonesia on managing biotechnology; materials from the workshop are set for publication by CAB International</li> <li>• information—with a 10-day workshop in India on information management</li> </ul> <b>NAARM-ISNAR collaboration:</b> prepared for a collaborative project to increase understanding of crucial issues related to institutional performance, governance, and accountability through collaborative R&D work and case studies. The aims are to derive generic lessons to be incorporated into NAARM's training and advisory programs and to strengthen NAARM's performance and accountability through training in institutional assessment, planning, monitoring, and evaluation	ODA (Japan)       NAARM
Indonesia	<b>Organizational performance:</b> developed a collaborative research project to help enhance the performance of agricultural research in Indonesia by improving accountability, assisted in assessing the need for improvements in governance, monitoring, evaluation, and impact assessment, along with assessing differing external and internal demands for research accountability within AARD. The aim is to provide a basis for improving the responsiveness of the research program to stakeholders' needs	World Bank AARD
Nepal	<b>Information system review:</b> reviewed the state of development of NARC's information system and the progress made towards developing the monitoring and evaluation system	USAID NARC
Pakistan	<b>System review:</b> carried out exploratory mission and prepared terms of reference for review of agricultural research system in Pakistan and mechanisms to strengthen federal and provincial linkages	

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## Eastern Europe/Former Soviet Union

Central Asia and Caucasus	<b>Strengthening NARS in Central Asia and the Caucasus:</b> planned expert consultation to be held in 1998; began research into current status of agricultural research systems in the region; initiated the preparation of country profiles (Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan); explored options for the design and development of sustainable and responsive agricultural research systems to meet the needs of private farmers in emerging market economies; assessed the suitability of alternative models of research organization and management in transitional economies	
Azerbaijan Georgia Ukraine	<b>Reviews and assistance to NARS:</b> <ul style="list-style-type: none"> <li>assisted Azerbaijan in reviewing its NARS and identifying options for responding to future needs</li> <li>assisted Georgia in identifying priority areas for possible collaboration in agricultural research organization and management</li> <li>conducted exploratory mission in Ukraine to get better insight of NARS situation; prepared detailed action plan for in-depth review and preparation of strategic plan</li> </ul>	CGIAR Secretariat

## Latin America/Caribbean

	<b>IBS seminar proceedings:</b> prepared proceedings from 1996 seminar in LAC for publication in 1998 in Spanish and English	DGIS SDC, IDRC
	<b>NARS integration:</b> supported the management, administration, and operation of the new subregional organization (SICTA), which includes the NARS of seven countries in Central America; studied priority setting on critical management topics in the region; offered technical assistance and services in the design, planning, and implementation of SICTA's policy and institutional development program jointly with IICA	Spain
	<b>Network development:</b> provided comprehensive support and services to COMTA in the design, plan, and implementation of SRGTT, included assessment and design to support the creation of SICTA	DGIS
	<b>PM&amp;E:</b> consolidated and expanded a group of trainers in PM&E and facilitated processes of institutional change; introduced new concepts and methods on strategic planning, monitoring, and evaluation to managers and research leaders; supported national and regional training efforts in management of agricultural research; implemented four pilot cases (Costa Rica, Cuba, Panama, Venezuela)	IADB SDC
	<b>Regional collaboration:</b> <ul style="list-style-type: none"> <li>negotiated general cooperation agreement between ISNAR and INIA (Spain) to strengthen collaboration in the interest of LAC countries</li> <li>supported SICTA board meeting (Honduras)</li> <li>received INIA senior staff member on in-service training to become familiar with ISNAR's management approaches and recommendations to NARS</li> </ul>	Spain
	<b>Strengthening research policy:</b> identified issues affecting agricultural research, environment, and agroindustry in Latin America in the next 20 years to strengthen regional and national agricultural research systems in order to design more effective research policies and implement improved organizational models in response to new technological demands from environmental and agroindustrial sectors	DGIS IADB

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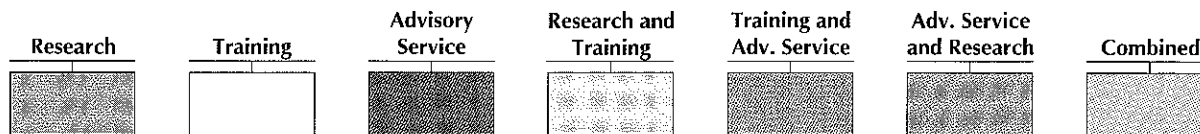
	<b>Universities in NARS:</b> adapted experience from African project on universities in NARS to develop a similar project with CATIE focusing on strengthening university-NARI research in Central America; developed project proposal that was adopted by REDCA and CATIE	CATIE REDCA Hohenheim
Caribbean	<b>NARS-CGIAR collaboration:</b> established regional focal point in CARDI to serve as channel for linking Caribbean NARS with CGIAR system; assisted in strengthening CARDI and UWI to act as essential linkages to promote partnership and coordinate regional R&D activities; promoted establishment of PROCICARIBE	DGIS CARDI UWI CGIAR
Ecuador	<b>Comprehensive institutional development (CID):</b> <ul style="list-style-type: none"> <li>based on review of INIAP, provided comprehensive service to assist in solving administrative problems and implementing tools to improve management capacity</li> <li>assisted in diagnosing the need for and planning the design of INFORM as a management tool for INIAP</li> <li>assisted in diagnosis, planning, training of trainers, and institutionalization of monitoring and evaluation at INIAP</li> </ul>	INIAP

## Sub-Saharan Africa

	<b>Africa overview study:</b> analyzed data collected in sub-Saharan Africa between 1993-1995 and prepared it for publication	DANIDA SPAAR, USAID
	<b>Applying linkage lessons:</b> applied ISNAR research on linkages to assist four countries in addressing their linkage problems; derived lessons from project experience; developed guidelines and tools for wider dissemination	DGIS
	<b>Education on agricultural research management:</b> in collaboration with NATURA, prepared joint project proposal to implement an educational program on agricultural research management in African universities	NATURA
	<b>Livestock priority setting:</b> worked to develop a priority-setting procedure for livestock research; identified determinants of technology adoption using ex post data; analyzed the diffusion process of different technologies to understand and incorporate users' perspectives	BMZ
	<b>Strengthening linkages to agricultural markets:</b> conducted case studies in Uganda, Zimbabwe, and Mali, with study results expected to be of relevance to sub-Saharan Africa in general. The aim is to identify and strengthen <i>best practices</i> in the NARS in identifying, interpreting, and responding to changes in agricultural markets; made case studies available as ISNAR discussion papers	DFID (UK) NRI IER-Mali NARO-Uganda DR&SS-Zimbabwe
	<b>Universities in NARS:</b> <ul style="list-style-type: none"> <li>four countries completed case studies and action plans</li> <li>supported implementation of action plans using core resources</li> <li>synthesized experience from six countries in international workshop</li> <li>highlighted recommendations for action by NARIs, universities, donors, and participating agencies as conclusion of international workshop</li> <li>prepared guidelines and study procedures for publication</li> </ul>	BMZ DSE GTZ CTA
East and Southern Africa	<b>Livestock development policies:</b> assisted CTA in planning, preparing, and conducting a seminar on livestock development policies in East and Southern Africa; synthesized this workshop and a similar one held in 1996 in West and Central Africa	CTA
SADC	<b>Training in research management:</b> as part of building capacity with SADC management development institutions, developed training modules on eight specialized areas of research management; completed project in 1997 with production of two final modules: on gender and strategic planning	USAID SADC ESAMI

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West Africa	<b>Regional networks:</b> assisted coordinators of West African research management networks in organizing work on key management issues in order to improve the formulation of network programs and actions by lead countries in specific management themes; assisted the networks in getting incorporated in the CORAF agenda for broader extension to the region	DGIS
Senegal Uganda	<b>Training in performance assessment:</b> trained administrative managers to train supervisors (assessors) in carrying out staff assessment. Objectives included clarifying the assessment process (goals, responsibility, criteria) and evaluating assessment exercises for future improvement	USAID World Bank Bangladesh Morocco Senegal Uganda
Benin	<b>Institutional development:</b> supported management of INRAB in establishing conditions for successful implementation of institutional development projects in NAROs. Staff interviews and program reviews will provide information to be used by INRAB in drafting an action plan to implement the INRAB master plan under a forthcoming BMZ project  <b>Master plan:</b> completed phase 2 of institutional development project involving consultation with GTZ for design of intervention for organizational change, including preparation for donor roundtable in January 1997 for implementation of the master plan  <b>Priority setting:</b> published experiences in regional priority setting as Research Management Guideline #4. The publication documents support to priority setting in the national agricultural research institute in Benin (INRAB). It is a good example of NARS-NARS collaboration between INRA Benin and INRA Morocco	DANIDA INRAB  GTZ BMZ IITA  INRAB
Burkina Faso	<b>Strengthening NARS:</b> contributed to capacity of INERA to plan research programs; further assisted in developing a methodology for participative training in research planning	World Bank INERA
Eritrea	<b>Program planning:</b> assisted in program planning and comprehensive component project planning; assisted in making adjustments to the research strategy; helped implement an international forum	Italian Cooperative Program FAO
Kenya	<b>Outposted ISNAR staff member:</b> ISNAR staff member outposted to KARI under Rockefeller Social Science Fellow Program; continued work on priority setting in agricultural research; initiated new work on research policy analysis	Rockefeller Foundation KARI
Lesotho	<b>Priority setting:</b> worked on developing tools and sustainable priority-setting processes and institutional structures at KARI; worked with KARI collaborators on a book documenting approaches and priority-setting experiences in Kenya  <b>Training master plan:</b> based on results of training needs assessment and an ISNAR methodology for preparing of training master plans, assisted KARI in preparing a training master plan  <b>Agricultural research policy and planning:</b> assisted Lesotho in reviewing its NARS and developing an agricultural policy and national agricultural research plan; assisted in preparation for institutionalizing improved management tools and procedures for strengthening national agricultural research systems and institutions; report submitted to the Government of Lesotho and the World Bank	Rockefeller Foundation KARI  European Union KARI  World Bank Lesotho

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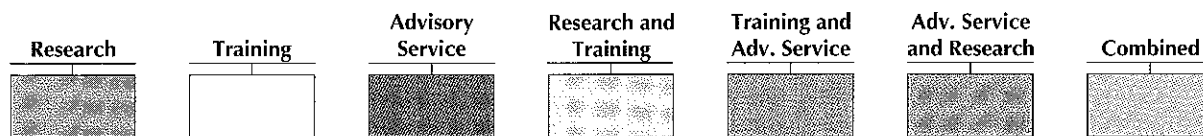
Nigeria	<b>Intercenter Training Project (ICTP):</b> in collaboration with three other CGIAR centers, translated and tested three training modules in French to broaden accessibility to ISNAR's training materials and respond to needs of francophone countries; used the English ICTP modules in Nigeria for anglophone countries	IITA ICRISAT WARDA
Rwanda	<b>Policy and NARS instability:</b> developed a framework for analyzing policy and NARS instability with particular reference to sub-Saharan Africa; produced analytical tools and empirical estimates of instability in Nigerian research; demonstrated usefulness to NARS leaders and policymakers in developing research capacity; prepared study to be published as an ISNAR research report  <b>Natural resource management:</b> promoted the strengthening of NRM concerns in agricultural research in Rwanda by developing training proposals and bringing together the national agricultural research institute, ISAR, with other collaborators	SDC, ICRAF ORSTOM-Réseau Erosion ISAR
Tanzania	<b>Farming systems:</b> analyzed progress made by the two farming-systems projects; investigated and proposed support for further adoption of farming-systems approach to research, including gender aspects of farming systems	DGIS Italy
	<b>Policymakers' workshop:</b> organized workshop to develop action plans for implementing recommendations from September 1996 workshop on Policy and Financing of Research in Tanzania; continued dialogue among research leaders and senior officials from key ministries	Netherlands USAID
Uganda	<b>Implementing INFORM-R:</b> visit by Uganda management information system (MIS) national coordinator to collaborate on developing a physical resource management system as part of his ongoing studies	USAID NARO (Uganda)
	<b>Comprehensive Institutional Development (CID):</b> continued assistance in building the institutional capacity of NARO in the areas of <ul style="list-style-type: none"> <li>• planning, monitoring, and evaluation</li> <li>• organizational performance evaluation</li> <li>• staff performance assessment</li> <li>• planning and management of research-extension-farmer linkages</li> <li>• management of physical resources</li> <li>• review of organizational structure and staff development</li> <li>• review of statute and terms and conditions of service, including salary structure</li> </ul>	World Bank

## West Asia/North Africa

	<b>Regional collaboration:</b> assisted AARINENA in preparing a project proposal on "Regionalizing Agricultural Research within Countries in the Maghreb"	AARINENA IFAD
	<b>Strategy preparation:</b> prepared strategy for WANA region in association with AARINENA, to help guide ISNAR's global strategy and medium-term plan for 1998-2000	
Morocco	<b>Training in performance assessment:</b> trained administrative managers to train supervisors (assessors) in carrying out staff assessment. Objectives included clarifying the assessment process (goals, responsibility, criteria) and evaluating assessment exercises for future improvement	USAID World Bank Bangladesh Morocco Senegal Uganda
Iran	<b>Strengthening NARS:</b> began cooperative three-year program with AREEO of the Islamic Republic of Iran to strengthen research management; joint ISNAR-CABI-AREEO team collaborated on developing a strategy for information management and information technology capacity in AREEO. Follow-up activities are planned to improve access to scientific information, establish integrated management information systems, and encourage network growth	AREEO CABI

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Morocco	<b>Information assessment:</b> assisted Moroccan NARS in evaluating its communication and publication needs	INRA
	<b>Integrating research and development:</b> synthesized issues from experiences in institutionalizing mechanisms for farmer participation in constraint analysis, planning adaptive research, and technology transfer; presented results in GTZ workshop	INRA
Palestine	<b>Identifying areas for collaboration:</b> carried out exploratory mission to Palestine to get better insight into the NARS situation and to assist in identifying strategies for policy formulation and strategic planning	UNDP
	<b>Policy formulation:</b> leaders of the Palestinian NARS worked at ISNAR for one week on issues of research policy and priority setting	UNDP

## Global

	<b>Assessing organizational performance:</b> worked on testing, adapting, and implementing an organizational performance assessment system (OPAS) with NARO managers in participating NAROs in Benin, Ghana, and Uganda	CIDA
	<b>Benchmarking:</b> completed research on four case studies of successful management practices, so-called <i>benchmarks</i> , for NAROs; published study on how Costa Rica established a coordinated NARS as an ISNAR Briefing Paper in English and Spanish; published a benchmark study entitled <i>A Research Partnership with Farmers: The Case of CENSA in El Salvador</i> in the <i>Journal for Farming Systems Research-Extension</i>	CIDA
	<b>CDC ecoregional study:</b> conducted a study of ecoregional research in the CGIAR on behalf of the Center Directors' Committee	
	<b>Closing the loop:</b> reviewed factors that can enhance the interface between agricultural research and policymaking in NRM; combined theory, case studies, and lessons from policymakers, donors, NGOs, and research leaders on ways of forging successful interfaces between research and policy change	ECDPM
	<b>Data-base development:</b> worked on the design and development of a Windows-based application for ISNAR's library. The aims are twofold: to improve the quality and speed of response to requests from ISNAR's stakeholders and partners and to prepare the library data base for access via the internet	
	<b>Development of training modules:</b> continued production, refinement, and dissemination of training materials; responded to increasing requests for training materials by preparing for dissemination via the internet; posted modules include <ul style="list-style-type: none"> <li>• Gender Analysis for Management of Research in Agriculture and Natural Resources</li> <li>• Priority Setting for Agricultural Research Programs</li> <li>• Planning, Monitoring, and Evaluation of Research Projects</li> <li>• Scientific Writing and Presentation</li> <li>• Research Program Formulation</li> <li>• Financial Management for Research on Agriculture and Natural Resource Management</li> <li>• Framework and Methodology on Training Needs and Organizational Constraints Assessment in Kenya</li> <li>• Gestion Financière Appliquée à la Gestion de la Recherche Agricole et des Ressources Naturelles</li> </ul>	European Union Italy USAID

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	<p><b>Diagnostic review:</b> designed methodological frameworks for review under the umbrella of SICTA and in collaboration with NARO managers in six Central American countries; developed and tested the analytic hierarchy process (AHP) and simple scoring models to help countries identify gaps and analyze their needs for improving research organization and management; presented results in a report to SICTA; developed a GID project for SICTA</p>	
	<p><b>Distance learning:</b> collaborated with Wye College, NAARM, and the Commonwealth of Learning on a study of the feasibility of training NARS managers in India through distance learning</p>	<p>DFID Wye College NAARM COL</p>
	<p><b>Ecoregional fund:</b> continued managing the Ecoregional Fund for Methodological Research on behalf of international scientific advisory committee (ISAC) and the fund's donors. The fund was established by DGIS to encourage methodological research to strengthen the concept of ecoregionality</p>	<p>DGIS SDC</p>
	<p><b>Electronic information and discussion fora:</b> developed electronic discussion fora for dissemination of materials on selected ISNAR topics; priority setting in agricultural research and agricultural biotechnology policy and management; subscribers include 24 research institutions in as many countries</p> <p><b>Financing NRM research:</b> initiated research on different modes of funding NRM research; drew examples from research in several NARS to develop understanding of funding strategies for long-term NRM research</p> <p><b>Funding for research management:</b> developed framework for empirical study on the implications of new funding mechanisms for managing research and organizational dynamics at the NARO level</p>	
	<p><b>IBS:</b> completed first five-year plan of work and secured financial support for extension of the IBS project through 2002; held two-week training program for agricultural research managers titled <i>Managing Biotechnology in a Time of Transition</i>, which will be offered annually in Asia</p>	<p>DGIS SDC ODA (Japan)</p>
	<p><b>Indicator series:</b> updated agricultural research investment data for OECD countries (including new data on the private sector); updated global overview of agricultural research expenditures; initiated data collection in Latin America; produced preliminary update of agricultural research investment trends by principal NAROs in Latin America</p> <p><b>INFORM-R:</b> continued field testing in Zambia—the first country in which INFORM-R is being fully tested—with development to provide capture and storage of experimental results; added new module to provide economic, physical, and social data to assist in research management decisions; conducted demonstrations at regional meetings in Mali, Mauritius, and Kenya, and staff meeting at CTA; responded to requests for trial versions from Indian Council for Forest Research, ILRI (Kenya), the Institute of Forest Genetics (India), and Tanga in Tanzania</p> <p><b>INFORM-R:</b> continued work on preparing INFORM-R materials in French, with aim of releasing French version of INFORM-R to interested francophone NARS</p> <p><b>Biotechnology:</b> evaluated existing approaches and methodologies for priority setting for biotechnology in the context of uncertainty and information limitations; developed framework for strategic decision making for biotechnology; validated the framework with a case study</p> <p><b>Internet development:</b></p> <ul style="list-style-type: none"> <li>developed a directory of Agricultural Research Organizations on the Web (AROW). AROW lists and provides hyperlinks to organizations involved in agricultural research that have internet sites</li> <li>developed WWW home pages for agricultural research organizations with limited access to the Internet. In 1997, pages were developed and posted for institutes in four countries: Fiji, Mauritius, Suriname, and Uganda</li> </ul>	<p>ODA (Japan)</p> <p>CTA Indian Council for Forest research ILRI Institute of Forest Genetics Tanga</p> <p>ETHZ</p>

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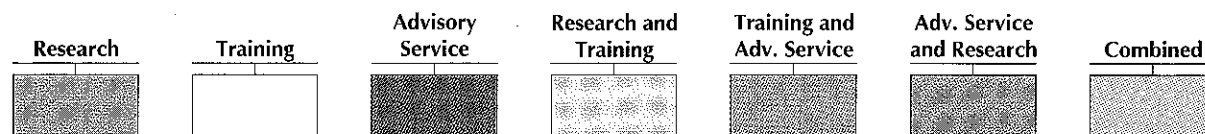
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	<p><b>Institutional challenges in NRM research:</b> assessed costs, benefits, and institutional implications of NARS choices in taking on and integrating participatory NRM approaches; in Kenya, did first of four field evaluations; prepared theoretical and evaluation framework paper</p> <p><b>Management of change:</b> provided guidance and advice to NARO managers and development professionals on managing change to improve performance of NAROs in developing countries; made presentations in regional meetings of NARO managers in South America, Central America, and Southern Africa</p> <p><b>Models for organizing research in agriculture:</b> reviewed existing models for organizing research in agriculture to improve ISNAR's capacity to analyze and make recommendations to countries about alternative organizational models</p>	
	<p><b>NARS-NARS-CGIAR linkages:</b> contributed to fuller NARS participation in the global agricultural research system by supporting national fora to help NARS plan their interactions with subregional and regional organizations; supported participation of NARS leaders in regional and global activities; facilitated NARS-NARS technical cooperation and direct support to institution-building through subregional organizations and the global forum</p>	<p>BGIS</p>
	<p><b>Organizational culture:</b> developed conceptual framework to study the role of organizational culture in NARO management. The aim is to develop tools for describing and analyzing organizational culture as a means to improve NARO management</p>	<p>Indian Institute of Management (Ahmedabad) Hohenheim University</p>
	<p><b>Organizational performance and institutional impact:</b> developed and tested a framework and instruments for assessing organizational capacity in planning, monitoring, and evaluation (PM&amp;E); undertook an in-depth assessment of the institutional impact of a regional project to strengthen PM&amp;E in Latin America and the Caribbean</p> <p><b>Planning for NRM-oriented research:</b> assessed procedures used by NARS in planning for NRM-oriented research in three areas: information for strategic planning; recognizing and addressing conflicts over natural resources; and integrating sustainability in research planning; identified innovative approaches in these areas</p> <p><b>Planning in agricultural research:</b> started work on sourcebook to</p> <ul style="list-style-type: none"> <li>• provide better understanding of critical issues in agricultural research and NRM planning as well as an overview of approaches, tools, and methods</li> <li>• highlight recent developments in these areas</li> </ul> <p><b>Research finance:</b> prepared sourcebook on research finance for policymakers and research managers</p>	<p>ACIAR DANIDA IDRC SDC</p>
	<p><b>Station management:</b> developed framework for self-evaluation of research-station needs in order to improve planning and budgeting. The project will include guidelines and training materials for improving the management skills of station and farm managers and technicians</p>	
	<p><b>Strengthening governance in NAROs:</b> in collaboration with the Erasmus University of Rotterdam, identified functions of governance and different models of governing mechanisms; analyzed the effectiveness of governing mechanisms and procedures; produced discussion paper on governance and agricultural research</p>	<p>Erasmus University</p>

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	<p><b>Strengthening the global system:</b> collaborated with ESDAR, EU, FAO, and IFAD in facilitating the establishment of the global forum for agricultural research (GFAR) and the secretariat for its NARS steering committee (NARS-SC)</p>	<p>ESDAR EU, FAO IFAD</p>
	<p><b>Systemwide Genetic Resources Program (SGRP):</b> case studies and presentations on management of biodiversity institutes and how they use biotechnology were adopted as one of ISNAR's contributions to the work of SGRP. Management courses in biotechnology served as a model for building such courses for the institutional management of national programs for the conservation of genetic resources. The SGRP was created in 1994 to focus the CGIAR response to new challenges posed by Agenda 21 and the Convention on Biological Diversity. The SGRP embraces all genetic resource activities of the CGIAR centers</p>	
	<p><b>Training in agricultural research management:</b> delivered two-week component on agricultural research management as part of four-month DSE course for biotechnology researchers; delivered five times over the past three years, this course now incorporates standard introductory material that can be tailored by case studies and exercises to specific audiences; as part of a multiplier strategy, trainers also being trained—both inside and outside ISNAR</p>	<p>DSE</p>

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# ISNAR Publications, Training Materials, and Other Major Documents

## Publications about ISNAR

Annual Report 1996

ISNAR Newsletter No. 32

L'ISNAR en bref No. 14

1997-98 Catalog of Publications

## Books

The Globalization of Science: The Place of Agricultural Research (new, expanded edition). By C. Bonte-Friedheim and K. Sheridan.

## Briefing Papers

No. 22f. Étude de cas-modèle. La sélection et le recrutement des gestionnaires: L'exemple d'une réussite en Argentine. By H. Hobbs, R.M. Longobardi, and H.C. Julian.

No. 28f. La régionalisation de la recherche agricole: Ses problèmes particuliers. By G. Gijsbers and R. Contant.

No. 33. Developing an integrated agricultural research policy: Experiences from Benin. By W. Janssen, P.T. Perrault, and M. Houssou.

No. 34. Commodity program priority setting: The experience of the Kenya Agricultural Research Institute. By M.W. Kamau, D.W. Kilambya, and B.F. Mills.

No. 35. Benchmark study. A research partnership with farmers: The case of CENTA in El Salvador. By H. Hobbs, J.F. Larios, F.R. Arias Milla, and J.E. Vides.

No. 35s. Estudio de caso gerencial exitoso. Una asociación con los productores para una investigación participativa: El caso del CENTA en El Salvador. By H. Hobbs, J.F. Larios, F.R. Arias Milla, and J.E. Vides.

No. 36. A social network approach to analyzing research systems: A study of Kenya, Ghana, and Kerala (India). By W. Shrum.

## Research Reports

No. 10. Research options for high-value agricultural exports in South Pacific island nations. By E. Fleming.

No. 11. Agricultural research plans in sub-Saharan Africa: A status report. By H. Hambly and L. Setshwaelo.

No. 12. Staff performance assessment and reward in international agricultural research centers. By E.G. Brush and C.A. Kramer.

## Research Management Guidelines

No. 4. Planning and priority setting for regional research: A practical approach to combine natural resource management and productivity concerns. By W. Janssen and A. Kissi.

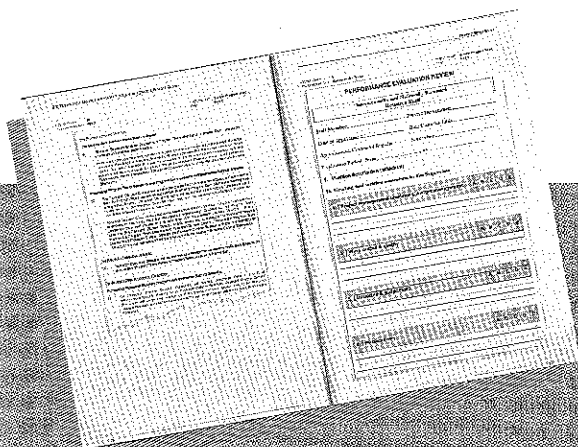
## Discussion Papers

*Discussion papers are preliminary reports of work in progress at ISNAR. They are neither edited nor formally reviewed, and their circulation is limited.*

DP 96-7. Disciplinary roots and branches of evaluation: Some lessons from agricultural research. By D. Horton.

DP 97-1. Cocoa biotechnology: Research and development, competitiveness, and implications for producer countries. By T. Braunschweig and N. Gotsch.

DP 97-2. Strengthening research linkages with agricultural markets in



## New publication helps strengthen human resource management

In June, ISNAR published a study of performance assessment and reward procedures used by managers in 14 of the international agricultural research centers of the CGIAR. Entitled *Staff Performance Assessment and Reward in International Agricultural Research Centers*, the study compares and analyzes the goals, criteria, and measures used for assessment and reward in each of the centers. It also provides examples of most of the forms used.

The aim of the report is to inspire managers in developing-country agricultural research organizations with ideas and practical information about alternative ways to assess the performance of staff and to reward outstanding performance. Most assessment procedures provide a baseline against which managers can measure a staff member's performance. Rewards, be they monetary or non-monetary, can encourage excellence. Used together, assessment and reward protocols help clarify what is expected of staff, and may influence them to act in a desired manner. The end result is improved quantity and quality of products and services produced by the research organization.

*Staff Performance Assessment and Reward in International Agricultural Research Centers*. Research Report 12, June 1997. Edwin G. Brush and Coenraad A. Kramer. x + 194 pages. ISBN 92-9118-012-7. Available online in pdf format.

sub-Saharan Africa: Zimbabwe case study. By A. Gordon.

DP 97-3. Strengthening research linkages with agricultural markets in sub-Saharan Africa: Mali case study. By A. Gordon.

DP 97-4. Strengthening research linkages with agricultural markets in sub-Saharan Africa: Uganda case study. By A. Gordon.

DP 97-5. Le renforcement de mécanismes de liaison entre la recherche et les marchés agricoles en Afrique subsaharienne: Étude de cas: Le Mali. By A. Gordon.

DP 97-6. Governance: Responding to pluralistic societies. By D. Dijkzeul, P.T. Perrault, and S.H. Hobbs.

DP 97-7. Agricultural research in government agencies in Latin America: A preliminary assessment of investment trends. By M.W.J. Cremers and J. Roseboom.

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**Cheaz, J., J. de Souza Silva, and J. Calderón** (eds.). Tercer taller subregional de formación de capacitadores/facilitadores de cambio en la administración de la investigación agropecuaria: Informe del tercer taller. Maracay, Venezuela, 18 al 29 de noviembre de 1996. Proyecto ISNAR de PSyE para América Latina y el Caribe.

**Cheaz, J., J. de Souza Silva, and D. Horton** (eds.). Segundo taller subregional de formación de capacitadores/facilitadores de cambio de la administración de la investigación agropecuaria: Informe del taller. Viña del Mar, Chile, 21-31 de octubre de 1996. Proyecto ISNAR de PSyE para América Latina y El Caribe.

Díaz, N., et al. Capacitación en planificación, seguimiento y evaluación para la administración de la investigación agropecuaria. Módulo 5: Gestión estratégica del cambio (GECI). ISNAR PM&E Project for Latin America and the Caribbean.

**Hobbs, S. H.** Ten tools and a plan of action for managing change in national agricultural research organizations.

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Scientifique, République de Burkina Faso. Renforcement du rôle de l'université Ouagadougou au sein du système national de recherche agricole du Burkina Faso: Recommandations et plans d'action.

Ministry of Agriculture, Ministry of Higher Education. Strengthening the role of universities in the national agricultural research system of Zimbabwe.

Ministry of Agriculture, Ministry of Higher Education. Strengthening the role of universities in the national agricultural research system of Zimbabwe: Recommendations and action plans.

Ministry of Agriculture, Animal Industries and Fisheries; Ministry of Education; Ministry of Natural Resources. Strengthening the role of Makerere University in the national agricultural research system of Uganda.

Ministry of Agriculture, Animal Industries and Fisheries; Ministry of Education; Ministry of Natural Resources. Strengthening the role of Makerere University in the national agricultural research system of Uganda. Proceedings of the national workshop, April 2-4, 1997, Kampala, Uganda.

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#### External Publications by ISNAR Staff Members in 1997

*These titles do not include papers presented at meetings unless they are part of published proceedings.*

**Bonte-Friedheim, C.** Farming forever: Research challenges for food production for the 21<sup>st</sup> century. In

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**Mackay, R.** Promoting project management in agriculture. In *Project:*

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**Meijerink, G.W.** Incentives for tree growing and managing forests sustainably—More than just carrots and sticks. Wageningen, the Netherlands: IKC Natuurbeheer.

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**Mills, B.F.** Gender and job search in developing country labor markets. *Industrial Relations* Vol. 36(1).

**Mills, B.F. and D.D. Karanja.** Processes and methods for research programme priority setting: The experience of the Kenya Agricultural Research Institute wheat programme. *Food Policy* Vol. 22(1).

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## Electronic Publications

The following titles are available online on ISNAR’s World Wide Web site (<http://www.cgiar.org/isnar/Publ/catalog.htm>).

After each title, the format of the publication is indicated: “html” files are readable by any Web browser; “pdf” files require the Adobe Acrobat reader (available at no charge via ISNAR’s site).

## Corporate publications

Annual Report 1996 (pdf, html)

Catalog of Publications 1997–98 (pdf, html)

ISNAR Newsletter No. 31 (pdf)

ISNAR Newsletter No. 32 (html)

L’ISNAR en bref N° 14 (html)

Ecoregional Fund to Support Methodological Initiatives (pdf, html)

ISNAR’s Strategy 1998–2002 (pdf, html)

Service through Partnership (pdf, html)

## Books

Survival in the Sahel: An Ecological and Developmental challenge (html)

Survivre au Sahel (html)

The Globalization of Science: The Place of Agricultural Research (new, expanded edition) (pdf)

## Research Reports

No. 12. Staff Performance Assessment and Reward in International Agricultural Research Centers (pdf)

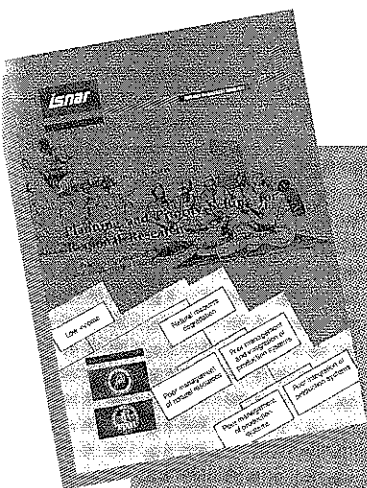
## Research Management Guidelines

No. 4. Planning and priority setting for regional research: A practical approach to combine natural resource management and productivity concerns (pdf)

**Briefing Papers** (all briefing papers are HTML files)

No. 1. Agricultural research in China

- No. 2. Ecuador: Agricultural research in the public and private sectors
- No. 3. Ghana: Structural adjustment and its impact on agricultural research
- No. 4. Agenda 21: Issues for national agricultural research
- No. 5. Structural adjustment and agricultural research in Indonesia: The 1980s experience
- No. 6. Information management needs in national agricultural research systems
- No. 7. Integration of natural resource and environmental issues in the research agendas of NARS
- No. 8. Comment améliorer la liaison entre la recherche et le transfert des technologies agricoles en Afrique
- No. 9. Structural adjustment and agricultural research in Chile
- No. 10. Investigación agrícola y el sector privado: Hacia un marco conceptual
- No. 11. Financing national agricultural research: The challenge ahead
- No. 12. Regional priority setting: Report of a roundtable
- No. 13. Restructuring agricultural research: Some lessons from experience
- No. 14. New perspectives for vulnerable institutions: Agricultural research systems in the small countries of West Africa
- No. 15. Report of a workshop: Strengthening the role of farmers' organizations in technology development and transfer
- No. 16. The use of systems methods by NARS for addressing natural resource issues
- No. 17. The use of systems methods in international agricultural research centers
- No. 18. Structural adjustment and agricultural research in Burkina Faso
- No. 19. Agricultural research in Africa: Three decades of development
- No. 19f. La recherche agricole en Afrique: Trois décennies de développement
- No. 20. Lessons learned: A private-sector foundation's support to developing-country agricultural research
- No. 20f. Leçons d'une expérience: Une fondation privée apporte une assistance à la recherche agricole dans un pays en développement
- No. 21. INFORM: An information system for agricultural research management
- No. 22. Benchmark study: Recruiting and hiring managers: A successful example from Argentina
- No. 22f. Étude de cas-modèle: La sélection et le recrutement des gestionnaires: L'exemple d'une réussite en Argentine
- No. 22s. Estudio de casos gerenciales exitosos: Selección y reclutamiento de gerentes: Un ejemplo exitoso—Argentina
- No. 23. Integrating and managing multidisciplinary teams in agricultural and NRM research
- No. 24. A framework to strengthen the role of universities in national agricultural research systems
- No. 24s. Marco para consolidar el papel de las universidades en los sistemas de investigación agrícola nacional
- No. 24f. Approche méthodologique pour le renforcement du rôle des universités au sein des systèmes nationaux de recherche agricole
- No. 25. La liaison entre la recherche et les organisations paysannes : Le cas de trois pays subsahariens
- No. 26. Research in an ecoregional framework for sustainable land use and food production: Report of a symposium



### Planning method combines natural resource management and productivity concerns

Demands on agricultural research are becoming more complex. Productivity concerns are now complemented by food security, equity, and sustainability issues. Addressing these concerns in the traditional framework of commodity research programs is practically impossible. New organizational models are needed—ones that allow participation of users in defining and executing the research agenda and use all the available information, from both within and outside the national domain. A new ISNAR publication called *Planning and Priority Setting for Regional Research* outlines one organizational model for planning and prioritizing agricultural research to combine natural resource management and productivity concerns, regional research programs. Regional programs stand close to the user, allow for systematic diagnosis and planning, can integrate productivity and sustainability issues, and make optimum use of the sometimes limited information available.

Part 1 of the 79-page book presents the rationale and background of regional research planning. This section is particularly relevant for institute directors, policymakers, and research program leaders. Part 2 is aimed specifically at program leaders and directors of research institutes. It presents an eight-step method for regional research planning. Part 3 reviews the overall procedures and raises some questions and issues that should be resolved in the future. It will be of interest to all persons involved in regional research planning.

*Planning and Priority Setting for Regional Research: A Practical Approach to Combine Natural Resource Management and Productivity Concerns*, Research Management Guidelines No. 4, September 1997, Willem Janssen and Ali Kisi, xv + 79 pages, ISBN 92-9118-034-3. Available online in pdf format.

No. 27. Colaboración, gestión y transferencia de biotecnología en la investigación: Cómo colmar las necesidades de los países en desarrollo

No. 28. Regionalization of agricultural research: Selected issues

No. 28f. La régionalisation de la recherche agricole: Ses problèmes particuliers

No. 28s. La regionalización de la investigación agrícola: Aspectos relevantes

No. 29. Report of a consultation: Collecting and managing environmental information in developing countries

No. 30. Linkages between research and technology users: Some issues from Africa

No. 31. Linkages between research and technology users in Africa: The situation and how to improve it

No. 32. Linkages between research, farmers, and farmers' organizations in Kenya: A summary of findings

No. 33. Developing an integrated agricultural research policy: Experiences from Benin

No. 34. Commodity program priority setting: The experience of the Kenya Agricultural Research Institute

No. 35. Benchmark study: A research partnership with farmers: The case of CENTA in El Salvador

No. 35s. Estudio de caso gerencial exitoso una asociación con los productores para una investigación participativa: El caso del CENTA en el Salvador

No. 36. A social network approach to analyzing research systems: A study of Kenya, Ghana, and Kerala (India)

**Training Modules** (*all training modules are pdf files and can be downloaded at no charge*)

#### **SADC/ESAMI/ISNAR**

Gender analysis for management of research in agriculture and natural resources

Priority setting for agricultural research programs

Planning, monitoring, and evaluation of research projects

Scientific writing and presentation

Research program formulation

Financial management for research on agriculture and natural resource management

#### **KARI/ISNAR**

Framework and methodology on training needs and organizational constraints assessment in Kenya

#### **Intercenter Training Program (ICTP)**

Gestion financière appliquée à la gestion de la recherche agricole et des ressources naturelles

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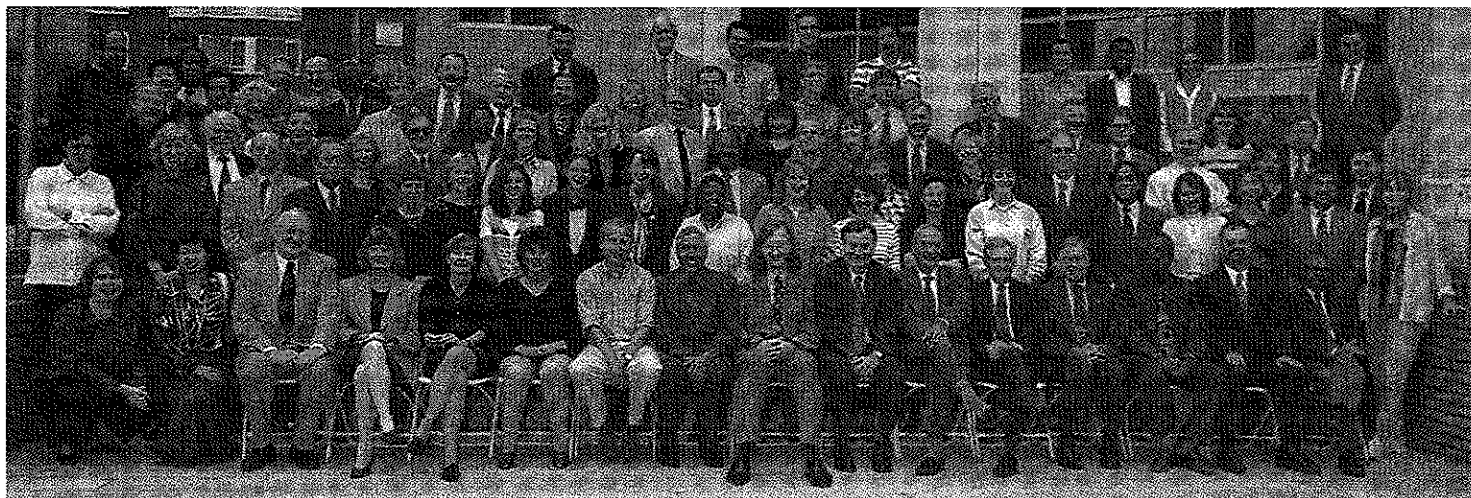
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# Financial Report for 1997

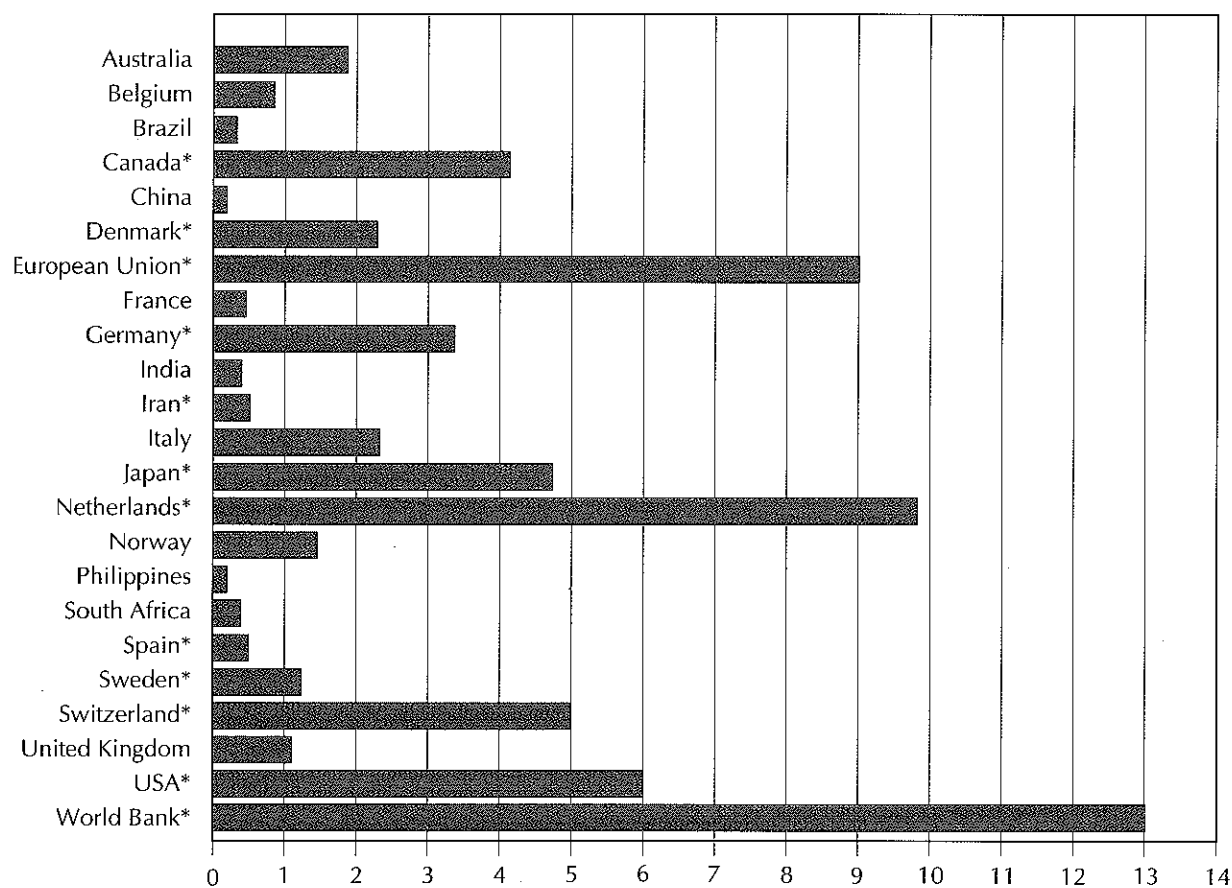
ISNAR closed its 1997 accounts with a small deficit of US \$224,000. This is about equal to the deficit in 1996, which arose from a reduction in some donor contributions. Shortfalls of income in both 1996 and 1997 underscore the need for ISNAR to strengthen its relations with established donors, as well as to explore new sources of income. ISNAR's operating costs in 1997 were \$10.4 million. This savings of \$800,000 over the 1996 figure arises from vigorous and ongoing efforts to contain costs.

Donors providing unrestricted grant contributions continue to be the mainstay of ISNAR's funding. Their solid support is essential for ISNAR to fulfill its mandate to strengthen NARS in developing countries. Unrestricted grants have increased from \$6.4 million in 1996 to \$6.9 million. However, these figures are not directly comparable because the 1997 figure includes part of the Netherlands' contribution that was previously listed separately as the financing of ISNAR headquarters. Denmark significantly increased its contribution to ISNAR in 1997, and South Africa became a donor for the first time. Also encouraging, Italy and Belgium returned as contributors to ISNAR's core program. It should be noted that the 1997 result includes a shortfall of \$95,000, arising from an exchange rate difference due to the late payment of the European Union of their 1996 contribution.

More targeted support, in the form of restricted grants and complementary projects, also continues to be an important part of ISNAR's finances. Total contributions here amounted to \$3 million. Thanks are due to many supporters. All donors, unrestricted and restricted, are named on the accompanying pages. Full details are provided in the financial statements of ISNAR, which are available from ISNAR upon request. The statements were audited by Moret Ernst and Young of The Hague.

ISNAR's stakeholders are many—NARS, donors, staff, board of trustees, sister organizations—but the most important are the people of the developing countries, whose present and future, in no small measure, depends on the ability of agricultural research to deliver appropriate and timely knowledge. We are proud to say that we believe ISNAR has provided good value in contributing to achieving that goal in 1997.

## 1997 Contributors of Unrestricted Grants (US \$100,000's)



\* Indicates that donor has also provided targeted support.

## Contributors of Targeted Grants

Agency for Agricultural Research and Development (AARD), Indonesia  
 Canada-Egypt McGill Agricultural Response Program (CEMARP)  
 Chemonics  
 Ciba-Geigy Foundation for Cooperation with Developing Countries, Switzerland  
 Consultative Group on International Agricultural Research (CGIAR)  
 Centro para la Inovación Tecnológica, Mexico (CamBioTec)  
 Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)  
 European Centre for Development Policy Management (ECDPM)  
 Food and Agriculture Organization of the United Nations (FAO)  
 German Foundation for International Development (DSE)  
 Institut Sénégalaise de Recherches Agricoles (ISRA)  
 Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA), Spain  
 Inter-American Development Bank (IDB)  
 International Development Research Centre (IDRC)  
 International Institute of Tropical Agriculture (IITA)  
 Kenya Agricultural Research Institute (KARI)  
 Mali  
 Mauritania  
 National Agricultural Research Organization (NARO), Uganda  
 Organisation for Economic Cooperation and Development (OECD)  
 Rockefeller Foundation

Southern African Centre for Cooperation in Agricultural and Natural Resources Research & Training (SACCAR)

Southern African Development Community (SADC)

Technical Centre for Agricultural and Rural Cooperation (CTA), EC and Lomé Convention members

Tunisia

Zambia Agricultural Research and Extension Project (ZAREP)

## ISNAR Income and Expenses, year ending 31 December 1997

Income	US \$000's	% of total
Unrestricted Grants	6,921	68%
Restricted Grants	840	8%
Complementary (Project) Grants	2,121	21%
Other	281	3%
<b>Total Income</b>	<b>10,163</b>	<b>100%</b>

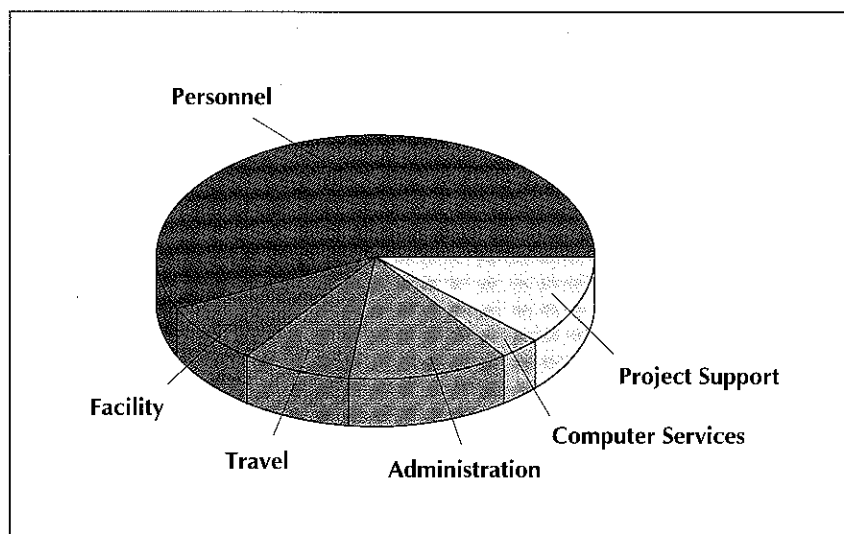
  

Expenses	US \$000's	% of total
Personnel	5,926	57%
Facility	859	8%
Travel	890	9%
Administration	1,224	12%
Computer Services	262	3%
Project Support	1,226	12%
<b>Total Expenses</b>	<b>10,387</b>	<b>100%</b>

Result	US \$000's	% of total
	-224	2%

## ISNAR Expenses, year ending 31 December 1997



# Abbreviations

<b>AARD</b>	Agency for Agricultural Research and Development, Indonesia	<b>INERA</b>	Institut d'Études et de Recherches Agricoles, Burkina Faso
<b>AARINENA</b>	Association of Agricultural Research Institutions in the Near East and North Africa	<b>INFORM</b>	Information for Agricultural Research Managers (ISNAR-developed management information system)
<b>ACIAR</b>	Australian Centre for International Agricultural Research	<b>INFORM-R</b>	INFORM relational
<b>AHP</b>	analytic hierarchy process	<b>INIA</b>	Instituto Nacional de Investigación Agropecuaria, Chile
<b>APAARI</b>	Asia-Pacific Association of Agricultural Research Institutes	<b>INIA</b>	Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria, Spain
<b>ARC</b>	Agricultural Research Council, Republic of South Africa	<b>INIA</b>	Instituto Nacional de Investigación Agropecuaria, Uruguay
<b>AREEO</b>	Agricultural Research, Education, and Extension Organization, Iran	<b>INIAP</b>	Instituto Nacional Autónomo de Investigaciones Agropecuarias, Ecuador
<b>AROW</b>	Agricultural Research Organizations on the Web	<b>INRAB</b>	Institut National des Recherches Agricoles du Bénin
<b>BMZ</b>	Bundesministerium für Wirtschaftliche Zusammenarbeit/Federal Ministry of Economic Cooperation, Germany	<b>INRA</b>	Institut National de la Recherche Agronomique, Morocco
<b>CABI</b>	CAB International, International Centre for Agriculture and Biosciences, UK	<b>INTA</b>	Instituto Nacional de Tecnología Agropecuaria, Argentina
<b>CARDI</b>	Caribbean Agricultural Research and Development Institute	<b>IPM</b>	integrated pest management
<b>CATIE</b>	Centro Agronómico Tropical de Investigación y Enseñanza, Costa Rica	<b>IPR</b>	intellectual property rights
<b>CDC</b>	center directors' committee	<b>ISAC</b>	international scientific advisory committee
<b>CGIAR</b>	Consultative Group on International Agricultural Research	<b>ISAR</b>	Institut des Sciences Agronomiques du Rwanda
<b>CENTA</b>	Centro Nacional de Tecnología Agropecuaria y Forestal, El Salvador	<b>JIRCAS</b>	Japan International Research Center for Agricultural Sciences
<b>CIDA</b>	Canadian International Development Agency	<b>KARI</b>	Kenya Agricultural Research Institute
<b>CID</b>	comprehensive institutional development	<b>LAC</b>	Latin America and the Caribbean
<b>COL</b>	Commonwealth of learning	<b>MIS</b>	management information system
<b>COMTA</b>	Comisión Mesoamericana de Tecnología Agrícola	<b>NAARM</b>	National Academy of Agricultural Research Management, India
<b>CORAF</b>	Conférence des Responsables de la Recherche Agronomique Africains	<b>NARC</b>	Nepal Agricultural Research Council
<b>CORPOICA</b>	Corporación Colombiana de Investigación Agropecuaria	<b>NARO</b>	National Agricultural Research Organization, Uganda
<b>CTA</b>	Technical Centre for Agricultural and Rural Cooperation, EC and Lomé Convention members	<b>NARO</b>	national agricultural research organization
<b>DANIDA</b>	Danish International Development Agency	<b>NARS</b>	national agricultural research system
<b>DFID</b>	Department for International Development, UK	<b>NARS-SC</b>	NARS steering committee
<b>DGIS</b>	Directorate General for International Cooperation (Ministry of Foreign Affairs), the Netherlands	<b>NATURA</b>	Network of European Agricultural (Tropically and subtropically oriented) Universities and scientific complexes Related with Agricultural development
<b>DR&amp;SS</b>	Department of Research and Specialist Services, Zimbabwe	<b>NGO</b>	nongovernmental organization
<b>DSE</b>	Deutsche Stiftung für Internationale Entwicklung (German Foundation for International Development)	<b>NRI</b>	Natural Resources Institute, UK
<b>ECDPM</b>	European Centre for Development Policy Management	<b>NRM</b>	natural resource management
<b>EMBRAPA</b>	Empresa Brasileira de Pesquisa Agropecuária	<b>ODA</b>	Official Development Assistance (Ministry of Foreign Affairs), Japan
<b>ESAMI</b>	Eastern and Southern African Management Institute, Tanzania	<b>OECD</b>	Organisation for Economic Co-operation and Development, France
<b>ESDAR</b>	Environmentally Sustainable Development—Agricultural Research (World Bank)	<b>OPAS</b>	organizational performance assessment system
<b>ETHZ</b>	Swiss Federal Institute of Technology Zurich	<b>ORSTOM</b>	Institut français de recherche scientifique pour le développement en coopération, France
<b>EU</b>	European Union	<b>PM&amp;E</b>	planning, monitoring, and evaluation
<b>FAO</b>	Food and Agriculture Organization of the United Nations	<b>PROCARIBE</b>	Program for Cooperation in Agricultural Science and Technology in the Caribbean
<b>FONAIAP</b>	Fondo Nacional de Asistencia y Investigación Agropecuaria, Venezuela	<b>R&amp;D</b>	research and development
<b>GFAR</b>	Global Forum for Agricultural Research	<b>REDCA</b>	Red Regional de Cooperación en Educación e Investigación Agropecuaria y de los Recursos Naturales
<b>GTZ</b>	Deutsche Gesellschaft für Technische Zusammenarbeit, Germany	<b>SACCAR</b>	Southern African Centre for Cooperation in Agricultural and Natural Resources Research & Training
<b>IBS</b>	Intermediary Biotechnology Service	<b>SADC</b>	Southern African Development Community
<b>ICRAF</b>	International Center for Research in Agroforestry	<b>SDC</b>	Swiss Agency for Development and Cooperation
<b>ICRISAT</b>	International Crops Research Institute for the Semi-Arid Tropics	<b>SGRP</b>	Systemwide Genetic Resources Program
<b>ICTP</b>	Intercenter Training Project	<b>SICTA</b>	Sistema de Integración Centroamericano de Tecnología Agrícola
<b>IDB</b>	Inter-American Development Bank	<b>SINCITA</b>	Sistema Nacional de Ciencia y Tecnología Agraria, Cuba
<b>IDIAP</b>	Instituto de Investigación Agropecuaria de Panamá	<b>SPAAR</b>	Special Program for African Agricultural Research (World Bank)
<b>IDRC</b>	International Development Research Centre	<b>SRGTT</b>	Sistema Regional de Generación y Transferencia de Tecnología
<b>IER</b>	Institut d'Économie Rurale, Mali	<b>UNDP</b>	United Nations Development Programme
<b>IFAD</b>	International Fund for Agricultural Development	<b>USAID</b>	United States Agency for International Development
<b>IICA</b>	Inter-American Institute for Cooperation on Agriculture	<b>UWI</b>	University of the West Indies, Trinidad & Tobago
<b>HTA</b>	International Institute of Tropical Agriculture	<b>WANA</b>	West Asia and North Africa
<b>ILRI</b>	International Livestock Research Institute	<b>WARDA</b>	West Africa Rice Development Association
		<b>WWW</b>	World Wide Web (Internet)
		<b>ZFU</b>	Zimbabwe Farmers' Union

# La gouvernance de la recherche agricole : changement des rôles dans la prise de décision

Le rapport d'activité pour l'année 1997 a pour thème principal « la gouvernance de la recherche agricole ». La notion de gouvernance peut se définir comme la façon dont un système ou organisme est orienté et guidé. Il s'agit donc d'un facteur important influençant le fonctionnement et les résultats des systèmes et organismes de recherche agricole. L'attention accrue portée actuellement à la gouvernance s'explique par les changements dramatiques qui se produisent dans l'environnement institutionnel. En effet, les rôles du marché, du gouvernement et de la société sont en évolution et il faut donc réexaminer les responsabilités des uns et des autres. En outre, les réformes du secteur public confèrent une valeur nouvelle à la notion « transparence et responsabilité » et à l'efficacité dont doit témoigner la recherche agricole publique.

En termes opérationnels, la gouvernance constitue le cadre au sein duquel a lieu la prise de décision. De nature habituellement hiérarchique, la gouvernance s'étend de l'échelon gouvernemental (c'est-à-dire du pouvoir de décision affectant les politiques de recherche agricole) à celui de l'institut (où sont prises les décisions sur la programmation des recherches) — en passant par l'échelon du système, où est établi un ordre des priorités pour la recherche agricole nationale. Une « bonne gouvernance » veille à ce que les intérêts des parties prenantes soient exprimés au niveau pertinent et à ce que ces parties intéressées contribuent l'information requise. Une des fonctions importantes qu'assume la gouvernance est de définir qui doit participer à la prise de décision, à chacun des niveaux. Une autre tâche primordiale consiste à tisser des liens entre les différents niveaux.

## Gouvernance et recherche agricole

L'évolution de la gouvernance de la recherche agricole reflète l'existence d'un certain nombre d'idées sous-jacentes portant sur des sujets connexes. Notons en premier lieu que dans bon nombre de pays, les gouvernements ont mis en cause le « statut public » de la recherche agricole. Les efforts de rationalisation budgétaire souvent reliés à l'ajustement structurel ont sévèrement contraint la capacité d'intervention des gouvernements. À cela s'ajoute une certaine

conception de la gestion publique selon laquelle plusieurs activités, jusqu'ici confiées au secteur public, seraient mieux réalisées si elles étaient prises en charge par le secteur privé. Toutefois, dans les pays en développement, c'est chose complexe que de vouloir mettre en jeu les mécanismes du marché pour orienter la recherche agricole. La production agricole est fréquemment l'unique gagne-pain de plus de cinquante pour cent de la population, portion composée principalement de petits exploitants qui représentent les secteurs de la société les plus pauvres et les plus dénués de pouvoir. Une recherche axée sur les demandes du marché risquerait d'être concentrée trop exclusivement sur les besoins de la couche minoritaire détentrice de pouvoirs économiques et politiques.

En second lieu, la décentralisation institutionnelle et la participation des paysans à la gouvernance sont de plus en plus considérées comme des mécanismes pour améliorer les performances de la recherche agricole, tout particulièrement du point de vue de sa pertinence. Dans les situations où l'on dispose d'une capacité administrative locale déjà solide — ou du moins susceptible d'être consolidée — la décentralisation peut contribuer au développement (orienté de la base au sommet) d'institutions transparentes et responsables, et davantage à l'écoute des paysans. On distingue deux catégories de mécanismes participatifs, mécanismes dits de « voix » et mécanismes de « sortie ». Sous « voix » se regroupent ceux qui assurent que les bénéficiaires des services rendus aient voix au chapitre lors de la prise de décisions sur les modalités de livraison des services. Par exemple, la possibilité que les paysans participent de plein droit aux comités de programmes de recherche. Les mécanismes « sortie » introduisent le facteur « concurrence » en prévoyant des possibilités d'aller s'adresser à d'autres pourvoyeurs si les premiers services rendus s'avèrent insatisfaisants.

S'agissant des processus participatifs, il importe de savoir *qui* se fait entendre et *sur quel type de décision*, et *comment* les contributions ainsi recueillies vont aboutir à l'élaboration d'un programme de recherche qui s'harmonisera avec les objectifs politiques nationaux. Le dilemme rencontré est qu'habituellement les groupements déjà bien dotés

sont aussi les mieux placés pour pouvoir former des associations et en tirer bénéfice. Il faut donc s'efforcer de créer des processus participatifs pour faire entendre également la voix d'autres groupes actuellement trop faiblement représentés : les femmes, par exemple, et les paysans pauvres.

Troisièmement, l'élargissement du programme de recherche et les rôles changeants des secteurs public et privé sous-tendent certains des changements au niveau de la gouvernance. À l'heure actuelle, la recherche agricole englobe des objectifs sociaux, économiques, et environnementaux, de même que des buts d'accroissement de production. Un traitement adéquat des problèmes soulevés à tous ces niveaux nécessite une prise de décision politique à l'échelon du gouvernement, et les contributions d'une représentation plus grande des parties intéressées

au niveau des communautés. Par ailleurs, la conséquence des mesures désormais plus strictes de protection des droits de propriété intellectuelle est de renforcer l'activité du secteur privé dans certains domaines de la recherche agricole, tels l'amélioration génétique des plantes. Cela permet au secteur public de se dessaisir de ces activités et de se consacrer à des tâches plus difficiles et de plus longue haleine, parmi lesquelles les recherches visant l'allègement de la pauvreté et la durabilité de l'agriculture et de l'environnement.

### **Les mécanismes de la gouvernance : exemples et innovations**

Les exemples illustrant l'application de mécanismes de gouvernance à la recherche agricole se rapportent à différents niveaux : au niveau du système national de recherche agricole



## **La Nouvelle Stratégie**

### **Renforcer les institutions de recherche agricole pour parer aux défis du 21<sup>ème</sup> siècle**

#### ***Une stratégie nouvelle pour les années 1998-2002***

En 1997, l'ISNAR a repensé sa stratégie institutionnelle pour pouvoir mieux répondre aux besoins de ses partenaires. Le processus de formulation fut participatif : guidée par les conseils généraux du nouveau directeur général et du Conseil d'administration, une équipe de l'ISNAR a mené les travaux auxquels se sont associés des partenaires et des parties prenantes, du monde en développement comme des pays industrialisés. Le regard, tourné vers le siècle prochain, les participants ont collaboré à l'identification des défis et des opportunités auxquels devra s'attendre la recherche agricole dans les pays en développement. Le fruit de leur travail est une nouvelle stratégie qui réaffirme le rôle unique de l'ISNAR dans le développement institutionnel appliqué à la recherche agricole. Le créneau de l'ISNAR se définit en effet par sa capacité de collaborer avec les directeurs de recherche et les dirigeants nationaux pour trouver des solutions d'avant-garde en matière de politique, d'organisation et de gestion de la recherche agricole. Le document intégral présente, outre les cinq stratégies institutionnelles, trois objectifs stratégiques et quatre orientations thématiques qui guideront les recherches de l'ISNAR dans les années à venir. Par toutes ses activités, l'ISNAR oeuvrera à contribuer à la réalisation des buts transcendants du GCRAI — sécurité alimentaire, allègement de la pauvreté, durabilité de l'environnement.

#### ***Trois objectifs stratégiques***

Suite à son évaluation de l'environnement externe et des orientations générales suivies par les NARS et le GCRAI, de même que de ses propres points forts et faibles, l'ISNAR a défini les trois objectifs stratégiques suivants :

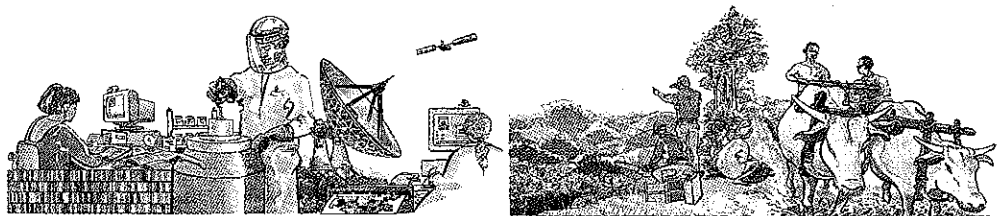
1. Renforcer les systèmes et les organismes nationaux de recherche agricole pour qu'ils puissent mieux répondre aux besoins de leurs clients et relever les défis futurs à mesure qu'ils se présentent.
2. Accroître le savoir mondial en matière de politique, d'organisation et de gestion de la recherche agricole.
3. Améliorer les voies d'accès aux connaissances disponibles.

(SNRA), à celui de l'institut de recherche, et aux niveaux régional et international.

Au niveau du SNRA, peu de pays disposent actuellement d'instances capables d'exercer une autorité sur l'ensemble des acteurs impliqués dans la recherche agricole nationale. La création d'institutions faitières pour régir la recherche agricole est encore peu concluante. Il convient de distinguer deux types d'institutions faitières — les sociétés nationales de recherche et les conseils de la recherche agricole.

Au niveau de l'institut de recherche, l'adoption de certains outils de gouvernance déjà répandus pourra conduire à de meilleurs résultats, ainsi qu'à une plus grande transparence et responsabilité institutionnelles. Ces outils sont, entre autres, les conseils d'administration, la gestion financière et

l'audit, et les évaluations externes. Les conseils d'administration constituent un lien principal entre l'organisation et son environnement externe. Leur composition ainsi que la continuité au plan de l'adhésion des membres déterminent en grande partie leur degré d'efficacité et leur capacité de voir l'avenir et de fournir un *leadership*. Le deuxième outil de gouvernance mentionné ci-dessus — la gestion financière et l'audit — remplit de plus une fonction de surveillance, pour garantir la transparence et la responsabilité financières. La vérification des comptes est en effet avant tout un moyen de contrôle indépendant pour s'assurer que la Direction d'un institut présente une image correcte de la performance financière de l'institut. Quant à l'évaluation dite externe, c'est l'examen conduit par équipe d'experts pour évaluer les performances et les résultats d'une institution (ou d'un programme ou projet) et pour proposer des



## La Nouvelle Stratégie

### Quatre orientations thématiques

**Thème directeur n°1. Les implications de la mondialisation pour la recherche agricole.** Les travaux sur ce thème porteront sur les ajustements que pourront effectuer les systèmes nationaux de recherche agricole (SNRA), ou des groupes de SNRA, en vue de réorienter leurs politiques et recherches à la lumière des conditions changeantes de la concurrence sur les marchés internationaux et de mettre à profit les nouvelles façons d'échanger connaissances et technologies.

**Thème directeur n°2. La gouvernance et la gestion du changement institutionnel.** Les recherches sur la gouvernance auront pour but (i) de mettre au point des mécanismes améliorés qui permettront aux parties prenantes, y compris aux femmes, d'exercer une influence sur le système de recherche ; (ii) d'élaborer des mécanismes effectifs pour recueillir le feed-back des parties prenantes de la recherche ; et (iii) d'analyser les mécanismes de gouvernance au sein des systèmes de recherche. Le but des recherches sur le changement sera une meilleure gestion du processus de changement. En effet, de par sa nature, le changement constitue déjà un défi aux organismes, tant publics que privés. En s'appuyant sur les théories de la gestion, l'ISNAR étudiera comment s'opèrent les changements au sein des SNRA et élaborera des concepts, des lignes directrices et des outils pour faciliter le changement et le développement institutionnels.

**Thème directeur n°3. Les technologies nouvelles et la recherche agricole.** L'émergence de technologies nouvelles et le désir d'en tirer pleinement parti amènent les décideurs politiques, les gestionnaires de la recherche et les scientifiques à vouloir assumer de nouvelles responsabilités et acquérir de nouvelles compétences. L'ISNAR examinera les modifications apportées aux politiques de développement des ressources humaines sous l'effet des nouvelles technologies — en particulier des biotechnologies et des technologies de l'information et de la communication. Il étudiera la mise en place des cadres juridiques devant garantir la protection de l'information et des innovations et il examinera les prises de décisions relatives à l'adoption ou le rejet d'un nouvel outil ou d'une nouvelle technologie de recherche.

**Thème directeur n°4. L'agriculture et l'environnement naturel.** Dans ce domaine, l'ISNAR adoptera une approche pluri-sectorielle. Il mettra au point des outils de planification et analysera les problèmes suscités par la recherche sur des facteurs de production tels l'eau et les sols. En outre, il s'efforcera de trouver des façons de faire participer les utilisateurs de ressources non agricoles à la planification et à l'évaluation des programmes de recherche agricole.

améliorations. La valeur de ce mécanisme provient de ce qu'un groupe d'observateurs externes, bien versés dans le domaine, posent un regard nouveau et perspicace sur les activités examinées.

Au niveau régional, on assiste à l'émergence de tout un éventail de mécanismes nouveaux pour régir la recherche agricole. Cet éventail englobe les associations professionnelles et les réseaux d'échange d'informations scientifiques, les organismes sous-régionaux, et même des programmes pleinement intégrés de recherche agricole, tels les instituts de recherche régionaux. Les adeptes de la régionalisation appuient leurs arguments sur les économies d'échelle et sur la taille plus importante du réservoir de ressources, notamment humaines, qui peuvent être mobilisées. Néanmoins, l'expérience montre qu'il n'est pas facile de tirer profit de ces avantages. En effet, pour lancer des initiatives régionales, il faut tout d'abord négocier et dégager un consensus au niveau de la prise de décision. En outre, les coûts de transaction peuvent être assez élevés. Et enfin, les représentants nationaux affectés aux corps régionaux peuvent être incapables de refléter les vues de toute la gamme de parties prenantes nationales. Ou bien, il arrive qu'ils ne jouissent pas de l'autorité juridique leur permettant de prendre toutes les décisions nécessaires.

Au niveau international, le GCRAI fournit un exemple de l'intensification de la participation des parties prenantes au niveau de la gouvernance. En effet, les représentants des SNRA des pays en développement exercent aujourd'hui une influence plus grande en guidant l'établissement de priorités et l'élaboration des programmes du GCRAI. Leur contribution peut être considérée comme l'application des approches participatives au domaine de la planification de la recherche agricole internationale.

## Conclusion

La gouvernance a toujours constitué un facteur critique de détermination du niveau de performance des organisations de recherche agricole. Or dans les pays en développement, le défi à relever est d'instaurer des mécanismes de gouvernance qui accordent une place, à l'échelon le plus approprié de la prise de décision, aux vues exprimées par les parties prenantes. Le rapport d'activité de l'année 1997 met en lumière quelques unes des façons d'aborder les questions de gouvernance les plus largement répandues dans les pays industrialisés et en développement. L'environnement de chaque pays étant unique, l'innovation en matière de gouvernance s'impose au niveau national afin de tenir compte des traditions et cultures spécifiques.



L'ISNAR a pour mission d'améliorer les performances et les résultats des systèmes de recherche agricole des pays en développement. Il collabore à cet effet avec des partenaires et parties prenantes dans les pays mêmes, en vue d'effectuer des recherches et de fournir des services qui ont trait aux politiques, à l'organisation et à la gestion de la recherche agricole.

### Les activités de l'ISNAR en 1997 : points saillants

1. Durant la dernière année d'un projet visant l'amélioration des liaisons entre la recherche, le transfert technologique et les associations paysannes, les représentants d'institutions agricoles au Sénégal, au Mali, en Tanzanie et en Zimbabwe ont établi des méthodes pour planifier de telles liaisons. Ces méthodes sont basées sur les résultats d'études menées par l'ISNAR depuis la fin des années 1980.

2. L'ISNAR et JIRCAS (le centre japonais pour la recherche agricole internationale) ont lancé un projet de formation axé sur les biotechnologies agricoles et l'information. Ce projet prévoit, pour une période de cinq ans, une série de stages de courte durée destinés à des cadres asiatiques responsables de la recherche.

3. Pour arriver à une exploitation à la fois efficace et durable des ressources naturelles, il est essentiel de consolider l'interface entre la recherche sur la gestion des ressources naturelles et la politique. Telle fut la conclusion d'une conférence tenue à Maastricht, aux Pays-Bas. Les participants ont d'une part exhorté les scientifiques à communiquer leurs résultats plus directement aux décideurs politiques et d'autre part recommandé aux décideurs politiques d'accueillir des scientifiques parmi leurs proches conseillers.

4. Au cours de l'année écoulée, le site Web de l'ISNAR est devenu une source plurilingue, fréquemment consultée : comptant 375 pages, il offre des informations sur un grand nombre de sujets connexes au travail de l'ISNAR. Les statistiques montrent qu'en 1997, les pages électroniques de l'ISNAR ont été « frappées » près de 100 000 fois, par des visiteurs ou par des passants.

5. Les études de cas effectuées dans six pays dans le cadre du projet intitulé « Le rôle des universités au sein des SNRA » ont mis en évidence certains des principaux défis à relever en vue d'améliorer la contribution de la recherche universitaire aux efforts de recherche axés sur le développement. En outre, des comités nationaux de coordination ont lancé la mise en oeuvre des plans d'action que les participants du projet avaient élaborés et qu'ils avaient examinés lors des ateliers nationaux et internationaux.

6. En Amérique latine, trois instituts de recherche agricole ont amorcé la création d'un système intégré de planification, suivi et évaluation des projets de recherche. Des dizaines de membres des personnels nationaux ont été formés à l'exécution de ces pratiques.

7. En 1997, le point de mire de la collaboration continue du KARI (l'institut de recherche agricole du Kenya) et de l'ISNAR, a été la définition des priorités parmi les recherches sur la gestion des ressources naturelles. La procédure mise au point est ancrée sur la méthode en huit étapes conçue précédemment pour l'établissement des priorités pour la recherche sur les produits de base.

8. La République islamique de l'Iran et l'ISNAR ont formulé une stratégie pour accélérer le développement des capacités de gestion de l'information et des technologies de l'information au sein du SNRA iranien.

9. Le service de liaison en biotechnologie, dont le siège est à l'ISNAR, a conclu un projet de collaboration au Chili qui avait eu pour but de développer et de tester un outil analytique d'établissement des priorités pour le programme national des recherches biotechnologiques. Cet outil est destiné aux décideurs politiques et aux chercheurs nationaux.

10. Le NRI (l'institut des ressources naturelles) du Royaume-Uni et l'ISNAR ont examiné comment et dans quelle mesure la recherche agricole incorpore les considérations du marché. La réalisation d'études de cas dans trois pays différents a permis d'évaluer la situation actuelle et d'identifier les domaines susceptibles d'améliorations.

11. L'ISNAR a évalué un projet dont le but avait été d'adapter, aux conditions de l'Afrique de l'Est, la « Farmer Field School Approach » (approche « école en champ de paysan ») déjà largement appliquée en Asie. Les paysans diplômés de cette « école » mettent en pratique leurs nouvelles compétences et les adaptent à de nombreuses cultures. En outre, ils diffusent activement autour d'eux leurs acquis et expériences.

12. Une étude des procédures d'évaluation et de récompense des performances qu'appliquent les gestionnaires des 14 centres appartenant au Groupe consultatif pour la recherche agricole internationale (GCRAI) présente l'analyse des buts, critères et mesures utilisés dans les protocoles de ces centres, et fournit des exemples de la plupart des formulaires utilisés.

13. Une nouvelle publication dans la série des « Guides pratiques de la gestion de la recherche », rédigée par des membres de l'Institut national de recherche agronomique (INRA) du Maroc et de l'ISNAR, présente une façon d'organiser la recherche en constituant des programmes régionaux de recherche.

# El gobierno de la investigación agropecuaria: cambiando los roles en la toma de decisiones

El tema para el informe anual 1997 es “el gobierno de la investigación agropecuaria. Gobierno puede ser definido como el medio mediante en el cual un sistema u organización es guiado y dirigido. Como tal, es un factor clave determinante del desempeño de los sistemas y organizaciones de investigación agropecuaria. La creciente atención puesta en el tema de gobierno se debe a los dramáticos cambios que han sucedido en el ambiente institucional. Los cambios en los roles del mercado, el Estado y la sociedad han llevado a la re-examinación de las responsabilidades de cada uno. Al mismo tiempo,

la reforma del sector público ha impuesto un nuevo valor en la transparencia, la responsabilidad y la eficacia de la investigación agropecuaria financiada con fondos públicos.

En términos operacionales, el gobierno es un marco de trabajo en el cual se toman las decisiones. Generalmente jerárquico, el gobierno se extiende desde la formulación de políticas, hasta la determinación de prioridades para el sistema de investigación agropecuaria, y desde ese punto a decisiones sobre la programación hechas a nivel de

## La Nueva Estrategia



## Fortaleciendo los institutos de investigación agropecuaria para enfrentar los retos del siglo 21

### *La estrategia revisada del ISNAR para 1998-2002*

En 1997 el ISNAR reformuló su estrategias institucional. El proceso fue participatorio, bajo la guía de su nuevo director general y apoyado por la junta de directores. Fue liderado por personal del ISNAR con la contribución de sus colaboradores y otros interesados tanto de países desarrollados como en vías de desarrollo. Juntos miraron hacia el próximo siglo y el comienzo de un nuevo milenio, a los retos y las oportunidades que probablemente enfrentarán la investigación agropecuaria en los países en desarrollo. La estrategia resultante reafirma el rol tan especial del ISNAR en el desarrollo institucional de la investigación agropecuaria. Define la colocación ideal del ISNAR en su trabajo con los líderes de la investigación y los formuladores de las políticas para resolver los problemas en primer plano de las políticas sobre investigación agropecuaria, organización y gestión. Asimismo describe las cuatro temas de concentración en los cuales el ISNAR enfocará su trabajo en los años venideros.

### **Objetivos estratégicos**

El ISNAR definió tres objetivos estratégicos para su trabajo basado en una evaluación del ambiente externo, las tendencias en los SNIA y el GCIAI, y sus propias fortalezas y limitaciones:

1. fortalecer la capacidad de las organizaciones y sistemas nacionales de investigación agropecuaria para responder efectivamente a las necesidades de sus clientes y a los retos emergentes
2. expandir el conocimiento universal referente a las políticas sobre investigación agropecuaria, organización y gestión
3. mejorar el acceso a este conocimiento;

Todas las actividades del ISNAR serán diseñadas para contribuir a la realización de estos objetivos y las metas más altas del GCIAI: seguridad alimentaria, alivio de la pobreza y sostenibilidad ambiental.

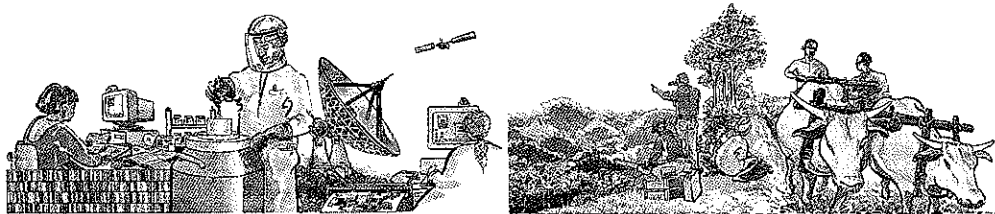
la organización de investigación. Un gobierno efectivo asegura que los intereses de los principales interesados sean tomados en consideración al nivel apropiado y que dichos interesados aporten la información necesaria para la realización de la tarea. Con referencia al tema de gobierno, es muy importante decidir quien debe participar a cada nivel del proceso de la toma de decisiones. Otro aspecto importante son los vínculos entre los distintos niveles.

## Las ideas fundamentales de la investigación agropecuaria

Algunas ideas relacionadas entre sí forman la base de los cambios actuales en el gobierno de la investigación agropecuaria. Primero, en todas partes los Estados están cuestionando el estatus de sector público de la investigación agropecuaria. Grandes déficits y ajustes estructurales han dejado brechas profundas en muchos presupuestos

estatales; y las teorías de administración pública sugieren que algunas agencias públicas se desempeñarían mejor si tuviesen que funcionar como empresas privadas. Sin embargo, es complejo depender de los mecanismos del mercado para gobernar la investigación agropecuaria en los países en desarrollo. En dichos países, quizás más del 50 por ciento de la población depende de la producción agropecuaria para su sustento. Mas aun, la mayoría de estos son productores a pequeña escala que constituyen los sectores más pobres y menos poderosos de la sociedad. Si es dirigida por las fuerzas del mercado, la investigación podría tener la tendencia a enfocarse en las necesidades de unos pocos con poder político y económico.

Segundo, la descentralización institucional y la participación de los agricultores en el Estado son percibidas cada vez más como una manera de mejorar el desempeño de la investigación



# La Nueva Estrategia

## Los Cuatro Temas de Concentración, 1998-2002

**Tema de concentración 1. La Globalización y sus Implicaciones para la Investigación Agropecuaria.** El trabajo en esta área observará como los SNIAs (o grupos de SNIAs) pueden adaptar sus políticas y actividades de investigación en vista de las condiciones cambiantes debido a la competencia en los mercados internacionales y de las nuevas oportunidades en el intercambio de tecnologías y conocimiento.

**Area de concentración 2. El Gobierno y la Gestión del Cambio Institucional.** El trabajo sobre el tema del gobierno se enfocará en (i) el desarrollo de mecanismos mejorados que permitan a los interesados, incluyendo a las mujeres, influir en el sistema de investigación; (ii) el diseño de apropiados mecanismos de retroalimentación para los interesados; y (iii) el análisis de los mecanismos internos de gobierno dentro de un sistema de investigación. El cambio institucional en sí es un reto para las organizaciones, tanto públicas como privadas. Desde el punto de vista de las teorías sobre la gestión y el manejo, el ISNAR expandirá sus conocimientos sobre los procesos de cambio en los SNIAs y ofrecerá guías, conceptos y herramientas para facilitar el cambio institucional y el desarrollo.

**Area de concentración 3. Nuevas Tecnologías para la Investigación Agropecuaria.** El impulso para sacar provecho de las nuevas tecnologías requiere de nuevas responsabilidades y especializaciones por parte de los formuladores de las políticas, los gerentes de la investigación y los científicos. Frente a esta posición, el ISNAR examinará como se modificarán las políticas sobre el desarrollo de los recursos humanos, en vista de las nuevas tecnologías, en particular la biotecnología y la tecnología para la información, como se establecerán los marcos legales de trabajo para la protección de la información y las innovaciones, y como se tomarán las decisiones de adoptar o rechazar una nueva herramienta de investigación o tecnología.

**Area de concentración 4. La Agricultura y el Ambiente.** El trabajo del ISNAR en esta área tomará un enfoque a través de los sectores, desarrollando herramientas de planificación, analizando la gestión de los problemas presentados por la investigación sobre factores de producción (tales como los suelos y el agua) y viendo la manera de integrar a los usuarios no agrícolas en la planificación y la evaluación de los programas de investigación agropecuaria.

agropecuaria. Donde localmente existe capacidad administrativa o donde la misma puede ser fortalecida, la descentralización podría contribuir a formar instituciones más responsables y transparentes, con el empuje proviniendo de la base hacia arriba. Los mecanismos participatorios pueden ser agrupados en dos amplias categorías: “voz” o “retiro”. La categoría *voz* les da a los beneficiarios la oportunidad de dar su opinión cuando se hacen las decisiones sobre a quien deben otorgarse los servicios. Por ejemplo, los agricultores podrían ser miembros con derecho a voto en los comités a cargo del programa de investigación. Los mecanismos de *retiro* son aquellos que introducen la competencia en el suministro de servicios. En otras palabras, si los beneficiarios no están satisfechos ellos pueden ir a otro proveedor de servicios.

En los procesos participatorios, surgen preguntas tales como la voz de *quién* es escuchada, a *qué* nivel, y *cómo* dichas contribuciones van a resultar en una agenda de investigación que responda a los objetivos de las políticas del Estado. Un dilema que existe es que los grupos bien dotados generalmente son los mejores para formar asociaciones y beneficiarse de ellas. Podría ser necesario usar medios alternativos para asegurar que la voz de los grupos con baja representación, tales como las mujeres y los agricultores de pocos recursos, sean escuchados en los procesos participatorios.

Tercero, la agenda de la investigación agropecuaria en proceso de ampliación y el cambio de los roles de los sectores público y privado son el fundamento de los cambios en el concepto de gobierno. Ahora la investigación agropecuaria abarca objetivos sociales, económicos y ambientales, así como las metas de la producción. Estos deben ser enfocados desde una perspectiva amplia y social. Para tratar tales dimensiones adecuadamente se requiere decisiones sobre las políticas del Estado, así como la colaboración de un número creciente de interesados a nivel de la comunidad. El rol cada vez más importante del sector privado en algunos tipos de investigación agropecuaria, tales como el fitomejoramiento, es uno de los resultados de la creciente protección de los derechos de propiedad intelectual (DPI). Esto debería liberar recursos en el sector público para concentrarlos en tareas más difíciles y de largo plazo, incluyendo aquellas dirigidas a tratar problemas como el de la pobreza y la sostenibilidad.

## Mecanismos de gobierno: ejemplos e innovaciones

Los ejemplos de mecanismos de gobierno usados en la investigación agropecuaria pueden ser relacionados a tres niveles: al nivel del sistema nacional de investigación agropecuaria (SNIA), al nivel de la organización de investigación y a los niveles regional e internacional. A nivel del SNIA, muy pocos países tienen organismos de gobierno capaces de ejercer autoridad sobre los distintos grupos de actores involucrados en la investigación agropecuaria a nivel nacional. La experiencia con los organismos coordinadores para gobernar la investigación agropecuaria ha sido, por tanto, demasiado heterogénea. Las corporaciones de investigación y los concejos de investigación agropecuaria son dos de los tipos de organismos coordinadores.

A nivel de la organización de investigación, algunas herramientas de gobierno estándar pueden ayudar a mejorar el desempeño organizacional y su transparencia. Estos incluyen juntas directivas, gestión financiera y auditoría y evaluaciones externas. Las juntas directivas proveen un vínculo clave entre la organización y su ambiente externo. La eficacia de las juntas directivas y su habilidad de emitir una visión y ejercer liderazgo son determinadas en gran medida por su composición y la continuidad del servicios de sus miembros. La segunda herramienta de gobierno, la gestión financiera y la auditoría, también sirve en su función de supervisión. La auditoría es esencialmente una verificación independiente que el desempeño financiero de la institución presentado por la Dirección es correcta. En una evaluación externa, un panel de expertos estudia una organización (o programa o proyecto) para evaluar su desempeño y hacer recomendaciones para su mejora. Para los interesados, el valor de este mecanismo consiste en que un grupo de personas conocedoras de fuera trae consigo un punto de vista fresco y crítico de las actividades bajo escrutinio.

A nivel regional, están surgiendo varios mecanismos para el gobierno de la investigación agropecuaria. Estos varían desde asociaciones profesionales y redes de trabajo para el intercambio de información científica hasta programas de investigación completamente integrados, tales como las instituciones regionales de investigación. Los partidarios de regionalización señalan la habilidad de fortalecer el desempeño de la investigación logrando economías de escala y una cobertura geográfica mas amplia, masa crítica de

los recursos e incremento en el intercambio de experiencias y tecnologías. Sin embargo, la experiencia demuestra que no es fácil captar estos beneficios. Esto se debe primero porque las iniciativas regionales requieren consenso en la toma de decisiones. Segundo, los costos de transacción podrían ser muy altos. Tercero, los representantes nacionales para los organismos regionales quizás no tienen la habilidad de reflejar la amplitud de los puntos de vista de todos los interesados nacionales. Probablemente no cuentan con la autoridad legal para tomar algunas de las decisiones requeridas.

A nivel internacional, el GCIAI ofrece un ejemplo de la participación cada vez mayor de los interesados en el gobierno. Los representantes de los SNIA de los países en desarrollo han ganado influencia en la orientación de la agenda y las prioridades del GCIAI. Tal contribución puede ser vista como la aplicación de enfoques

participatorios en la planificación de la investigación agropecuaria internacional.

## **Conclusión**

El aspecto de gobierno siempre ha sido un factor crítico para determinar el desempeño de una organización de investigación agropecuaria. Para la investigación agropecuaria en los países en desarrollo el reto es introducir mecanismos de gobierno que incorporen la voz de los interesados de importancia al nivel mas apropiado en el proceso de la toma de decisiones. Este informe anual para 1997 sobresalta algunos enfoques sobre gobierno usados mas ampliamente en los países industrializados y en vías de desarrollo. Sin embargo, el ambiente en cada país en desarrollo es único. Esto requiere innovación en el gobierno. Asimismo subraya la necesidad de buscar soluciones novedosas que tomen en cuenta la cultura y las tradiciones locales.

La misión del ISNAR es fortalecer el desempeño de los sistemas de investigación agropecuaria en los países en desarrollo. Con este fin el ISNAR realiza investigación y proporciona servicios en las áreas de políticas, organización y gestión, junto con sus colaboradores nacionales e interesados.

### Actividades sobresalientes del ISNAR en 1997

1. En el último año de un proyecto orientado a la acción, para mejorar los vínculos entre la investigación, la transferencia de tecnología y las asociaciones de agricultores, los representantes de organizaciones agropecuarias en Senegal, Mali, Tanzania y Zimbabwe pusieron en marcha métodos para la planificación de vínculos basados en estudios hechos por el ISNAR desde fines de los ochenta.
2. El ISNAR y el Centro Internacional para las Ciencias Agropecuarias del Japón (JIRCAS) lanzaron un proyecto de cinco años de duración, para la capacitación sobre el manejo de la biotecnología agropecuaria e información. El proyecto ofrecerá una serie de cursos cortos de capacitación a los gerentes de investigación asiáticos con experiencia, en las áreas de biotecnología e información.
3. La fase intermedia entre los investigadores del manejo de los recursos naturales y los formuladores de las políticas debe ser fortalecida con el fin de lograr el uso eficaz y sostenible de los recursos naturales. Tal fue la conclusión a la que se llegó durante la consultación en Maastricht, Países Bajos. Los participantes exhortaron a los científicos a tratar sus resultados más directamente con los formuladores de las políticas, y los formuladores de las políticas deberían acercarse a los científicos a sus círculos de consejeros que establecen las reformas.
4. La sede electrónica del ISNAR en la Red Mundial, de 375 páginas, se ha convertido en una fuente de información multilingüe, bastante consultada, sobre un rango muy amplio de temas relacionados al trabajo del ISNAR. Las estadísticas muestran que en 1997 visitantes de todas partes del mundo llegaron a las páginas del ISNAR cerca de 100,000 veces.
5. Los seis estudios de casos de países llevados a cabo por el proyecto sobre "Universidades en los SNIAS" sobresalieron como un reto clave para mejorar las contribuciones de las universidades a la investigación orientada al desarrollo. Los comités directivos nacionales empezaron a implementar los planes de acción que fueron desarrollados durante el proyecto y sostuvieron un debate en talleres de trabajo tanto nacionales como internacionales.
6. Tres institutos de investigación agropecuaria en América Latina empezaron a desarrollar un sistema integrado de planificación, seguimiento y evaluación de sus proyectos de investigación. El proyecto dio capacitación a docenas de personal nacional en estas áreas.
7. En este año, la priorización de la investigación sobre la gestión de los recursos naturales de KARI fue el foco de la continua colaboración entre el ISNAR y el Instituto de Investigación Agropecuaria de Kenya (KARI). El procedimiento desarrollado se basa en la metodología de ocho pasos diseñado en años anteriores para la determinación de prioridades en investigación de cultivos.
8. La República Islámica del Irán y el ISNAR elaboraron una estrategia para acelerar el desarrollo de la capacidad de gestión de la información y de la tecnología para la información del SNIA iraní.
9. El ISNAR, en cooperación con el Servicio Intermediario de Biotecnología (SIB), concluyó un proyecto colaborativo en Chile para desarrollar y probar una herramienta analítica para los formuladores de políticas nacionales e investigadores para determinar las prioridades del programa nacional de investigación de biotecnología agropecuaria de Chile.
10. El ISNAR y el Instituto Nacional para los Recursos Naturales (NRI) del Reino Unido, examinaron como son incorporadas las consideraciones del mercado en la investigación agropecuaria. A través de tres estudios de países en desarrollo, el proyecto evaluó la situación actual e hizo recomendaciones.
11. El ISNAR evaluó un proyecto para adaptar el enfoque exitoso de "el colegio del campo del agricultor" a las condiciones del Africa del Este. Apparently los agricultores que se graduaron del "colegio" aplican las destrezas recientemente aprendidas en el manejo de muchos de sus cultivos y contribuyen a desarrollar la capacidad a nivel comunal.
12. Un estudio sobre los procedimientos para la evaluación del desempeño y la retribución usados por gerentes en 14 de los centros internacionales de investigación agropecuaria del GCIAT, analiza las metas, los criterios, y las medidas usadas en los protocolos de los centros y proporciona ejemplos de las formas más usadas.
13. Una nueva Guía para la Gestión de la Investigación, elaborada por el ISNAR y el Instituto Nacional de Investigación Agropecuaria de Marruecos (INRA) indica la manera de organizar la investigación en programas regionales de investigación.

## 农业研究的管理：决策过程中作用的变化

“农业研究的管理”是1997年年度报告的主题。管理可以定义为指引和领导一个系统或组织的方式。因此，它是决定农业研究系统或组织业绩的一项关键因素。对管理的日益关注是由机构环境中发生的显著变化所引起的。市场、政府、社会三者作用的不断变化，使人对它们的责任进行了重新审视。与此同时，公共部门的改革对由公共资助开展的农业研究在透明度、责任性和有效性等方面提出了更高的要求。

从操作角度而言，管理是指进行决策的框架。管理通常以等级形式存在，它上至政府做出的政策决定，中至为农业研究系统确立的优先次序，下至研究机构一级做出的方案决定。有效的管理应确保有关利益人的利益在适当层次上得到反映，并且利益人人为此提供所需的信息。管理的一个重要方面是决定在每一决策层次上应有哪些人参与；其另一重要方面则是在不同的层次之间建立联系。

### 农业研究中的若干基本思想

目前在农业研究管理上出现的变化是由一些相关的思想所引发的。首先，各国政府都在对农业研究的公共部门地位提出质疑。巨额亏损以及结构调整使许多国家的预算出现了大量赤字；同时，公共行政学理论指出，一些公共机构若能更多地以私营企业的方式运作，将会取得更好的业

绩。不过，在发展中国家依靠市场机制管理农业研究，是非常复杂的。在那里，50%以上人口的生计有赖于农业生产。此外，他们大多是小规模生产者，属于社会上最贫困、力量最薄弱的阶层。在市场的驱动下，研究的重点往往会集中在少数具有经济和政治实力的人的需要上面。

其次，机构上的放权以及农民在管理上的参与，越来越被视为提高农业研究绩效、特别是增强其实用性的途径。只要当地具有行政管理能力，或者这种能力可以得到加强，放权便可有助于自下而上地建立起反应更敏捷、责任性更强的体制。参与机制可以分为两大类：“发言权”和“退出权”。发言权机制使人们可以在决定提供服务的方式时发表意见。例如，农民可以成为研究方案委员会的表决成员。退出权机制可以在服务的提供上引进竞争。换言之，人们在对所提供的服务感到不满意时，可以将自己的经营业务转往其他地方。

在参与进程中，会遇到以下问题，即：*谁*、在什么级别上可以有发言权，以及发表的意见将怎样导致制定出与政府的政策目标相一致的研究议程。令人棘手的是，往往是一些资源丰富、条件优越的集团更能组成各种协会并从中受益。因此需要找到其他一些办法，以确保妇女和资源贫乏的农民等一些代表不足的群体，也可以在参与进程中切实享有发言权。

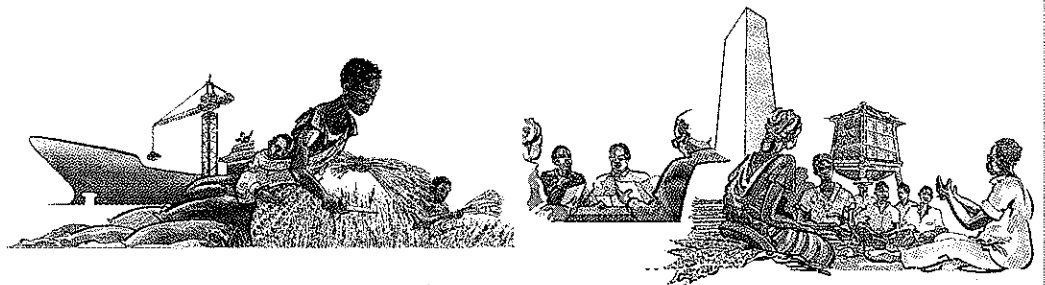
第三，农业研究议题的扩大以及公共和私营部门作用的变化引发了管理中的变革。当今的农业研究，除生产指标以外，还包括了各种社会、经济和环境目标。这些问题必须从更加广泛的社会角度加以解决。为了充分应付如此众多的方面，不仅需要政府做出政策决定，而且也需要在社区一级有越来越多的利益人参与。私营部门在某些类型的农业研究（如作物育种）中的作用得到加强，这是提高知识产权保护的结果。它有助于将公共部门的资金节省出来，集中用于在解决贫困和可持续发展等

问题方面开展的更为艰巨而长期性的任务。

### 管理机制：实例与创新

目前在农业研究中采用的管理机制的实例可以与三个层次相关：国家农业研究系统一级，研究机构一级，以及区域和国际一级。在国家农业研究系统一级，很少有哪个国家拥有可以对参与全国性农业研究的各种各样群体行使权力的管理机构。迄今为止，在农业研究最高管理机构方面

# 新战略



加强农业研究机构，迎接二十一世纪的挑战

## 国家农业研究国际服务中心 1998-2002 年修订战略

国家农业研究国际服务中心在 1997 年重新制定了它的机构战略。这项工作在其新任总干事的领导下，在理事会的帮助下，吸收了广泛的参与。它由国家农业研究国际服务中心工作人员牵头，同时听取了来自发达国家和发展中国家的伙伴和其他利益人的意见。他们一起展望下个世纪，探索随着下一个千年的到来，发展中国家的农业研究可能面对的机遇和挑战。由此制定的战略重申了国家农业研究国际服务中心在农业研究机构发展中的独一无二的作用。它明确指出国家农业研究国际服务中心所应发挥的作用，是与研究领导人和决策者一起致力于解决处于农业研究政策、组织和管理最前沿的各项问题。它还阐述了国家农业研究国际服务中心在未来几年将作为工作重点的四个以问题为导向的主攻方向。

### 战略目标

国家农业研究国际服务中心在对外部环境、国家农业研究系统和国际农业研究协商集团内部趋势、以及其自身力量和局限所做评估的基础上，为其工作确定了三项战略目标：

1. 提高国家农业研究机构和系统有效响应其客户需求以及应付不断出现的挑战的能力
2. 增进全球对农业研究政策、组织和管理了解
3. 改善上述知识的获取途径

国家农业研究国际服务中心的全部活动都将旨在促进这些目标以及国际农业研究协商集团更高层次目标——粮食安全、减轻贫困、以及环境可持续性——的实现。

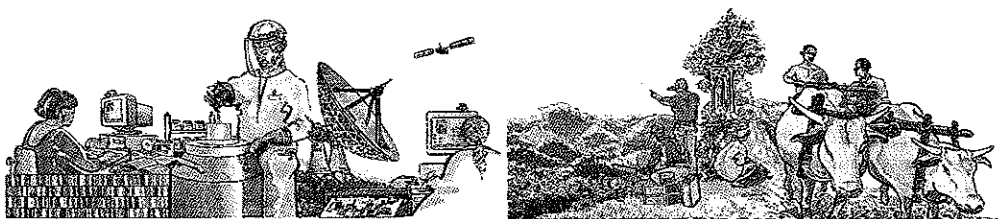


的经验好坏参半。此类最高机构有两种：一种是研究公司，另一种是农业研究理事会。

在研究机构一级，一些标准化的管理手段可以帮助提高组织绩效和责任性。这些手段包括管理委员会，财务管理和审计，以及外部审查。管理委员会是连接组织及其外部环境的重要环节。管理委员会的有效性，以及它能否高瞻远瞩，行使领导职能，在很大程度上决定于它的组成及其成员的连续性。第二种管理手段，即财务管理

和审计，同时也是一种监督与责任机制。审计主要是对管理部门有关本组织财务表现的叙述是否属实进行的一种独立审核。外部审查，则由一个专家小组对一个组织（或方案或项目）进行考察，对其成绩做出评估，并就需要的改进提出建议。对利益人而言，此项机制的价值在于来自外部的一批有识之士，可以为正在审查的活动带来全新而又深刻的见解。

在区域一级，一些新的农业研究管理机制正在出现。其范围从各种专业协会和科学



# 新战略

## 四大主攻方向，1998-2002年

**主攻方向 1、全球化及其对农业研究的影响。**在此主攻方向的工作将探讨各国家农业研究系统（或多个国家农业研究系统组成的集团）应怎样根据国际市场中不断变化的竞争条件以及技术和知识交流的新机遇，对其政策和研究活动做出调整。

**主攻方向 2、机构改革的管理和操作。**在机构改革的管理方面，工作重点将是：(1)改进各项机制，使利益人，包括妇女，能够对研究系统发挥影响；(2)设计面向利益人的适当反馈机制；以及(3)分析研究系统的内部管理机制。对包括公共和私营组织在内的所有组织而言，变革本身就是一种挑战。在管理理论方面，国家农业研究国际服务中心将增进自身对国家农业研究系统变革进程的了解，同时为促进体制的变革与发展提出指导方针、概念和工具。

**主攻方向 3、农业研究的新技术。**在努力利用新技术方面，要求决策者、研究管理人员以及科学家承担新的责任，掌握新的专门技能。以此为背景，国家农业研究国际服务中心将研究如何根据新的技术，特别是生物技术和信息技术，对各项人力资源发展政策做出调整；如何为保护信息和革新建立法律框架；以及如何就新的研究工具或技术的采纳或摒弃做出决定。

**主攻方向 4、农业与环境。**国家农业研究国际服务中心在此领域的工作将采取一种跨部门的方法进行，它将致力于开发各种规划工具，分析在生产要素（如土壤和水）研究中遇到的管理问题，并探索如何把非农业用户纳入农业研究项目的规划与评估过程。

信息交流网络，直至充分一体化的农业研究系统，如区域性研究机构。区域化的支持者认为，它可以通过实现规模经营、涵盖更加广泛的地域、集中足够的资源，以及扩大经验和技术的分享，从而提高研究的绩效。但是，经验表明，取得这些成效并不是件容易的事。这首先是因为各种区域性主动行动要求通过谈判，在决策中取得协商一致。其次，业务费用会相当高。第三，参加区域机构的国家代表可能无法反映出本国利益人的所有不同观点。或者，他们可能不具备做出某些必要决定的法律授权。

在国际一级，国际农业研究协商集团本身为扩大利益人在管理中的参与提供了范例。发展中国家国家农业研究系统的代表已经在引导国际农业研究协商集团的议

程和优先次序方面发挥了影响。这种贡献可以视为参与方法在国际农业研究规划中的应用。

## 结论

管理一直是决定农业研究组织业绩的一项关键因素。发展中国家农业研究面临的挑战是如何引入适当的管理机制，以便在最为恰当的决策层次上听到有关利益人的声音。1997年的年度报告，重点介绍了在工业化国家和发展中国家中最为广泛采用的一些管理方法。然而，每个发展中国家的环境都是独特的。这要求在管理上必须有创新。它也突出表明，必须寻找一些能够照顾当地文化与传统的全新的解决办法。

## 国家农业研究国际服务中心的任务

国家农业研究国际服务中心的任务是提高发展中国家农业研究系统的业绩。为此目的，国家农业研究国际服务中心与国家伙伴和利益人一起，在政策、组织和管理领域开展研究，提供服务。

### 国家农业研究国际服务中心 1997 年的活动概要

1. 在为改进研究、技术转让与农民协会之间的联系而开展的一项行动项目的最后一年里，塞内加尔、马里、坦桑尼亚和津巴布韦农业组织的代表，在国家农业研究国际服务中心自八十年代末以来开展的研究基础上，建立了各种联系规划方法。
2. 国家农业研究国际服务中心与日本国际农业科学研究中心一道，发起了一项为期五年的农业生物技术和信息培训项目。该项目将在生物技术和信息领域为亚洲高级研究管理人员提供一系列短期培训课程。
3. 为了实现自然资源的有效和持久利用，必须加强自然资源管理研究人员与决策者之间的联系。这是在荷兰马斯特里赫特开展的一项磋商中得出的结论。磋商参与者敦促科学家应以更加直接的方式将其研究成果提供给决策者；而决策者则应将科学家纳入其改革顾问集团的核心。
4. 国家农业研究国际服务中心的 375 页万维网网站已成为一个多语种、来访频繁的信息来源，它涵盖了与国家农业研究国际服务中心的工作有关的广泛话题。统计显示，在 1997 年，来自世界各地的来访者“击中”国家农业研究国际服务中心网页的次数达到了近 100,000 次。
5. 在“大学在国家农业研究系统中的作用”项目中开展的六项国家案例研究，突出显示了在改进大学对面向发展的研究所做贡献方面存在的若干主要挑战。各国家指导委员会已开始将项目开展期间制定并在国家和国际研讨会上经过辩论的各项行动计划付诸实施。
6. 拉丁美洲的三个农业研究机构已着手为其研究项目建立一项将项目规划、监督与评估一体化的综合系统。该项目已在上述领域培训了数十名国家工作人员。
7. 为肯尼亚农业研究所的自然资源管理研究确立优先次序，是今年国家农业研究国际服务中心与肯尼亚农业研究所继续合作的重点。所采用的程序是在前几年为产品研究优先次序设计的“八步法”的基础上制定的。
8. 伊朗伊斯兰共和国与国家农业研究国际服务中心合作，为加速发展伊朗国家农业研究系统的信息管理和信息技术能力制定了一项战略。
9. 国家农业研究国际服务中心所属生物技术中介服务中心结束了在智利的一项联合项目。该项目为国家决策者和研究人员开发和测试了一种用以确立智利国家农业生物技术研究项目优先次序的工具。
10. 国家农业研究国际服务中心与联合国自然资源研究所一起，对如何在农业研究中考虑市场因素进行了考察。通过三例国家研究，该项目对现状做了评估，并指出了需要改进的领域。
11. 国家农业研究国际服务中心对一项旨在将“农田办学”的成功方法应用于东非各国的项目进行了评估。从“农田学校”毕业的农民，看来已将他们新学到的技能运用于许多农作物，他们为提高社区一级的能力做出了贡献。
12. 在对国际农业研究协商集团所属 14 个国际农业研究中心管理人员采用的业绩评估和奖励程序进行的一项研究中，分析了在各中心的规程中采纳的目标、标准和措施，并对采用的大部分形式举例做了说明。
13. 由国家农业研究国际服务中心与摩洛哥国家农业研究所共同制定的一项新的研究管理指导方针，介绍了一种以区域研究项目的形式组织研究的方法。

# Руководство сельскохозяйственными исследованиями: изменение роли в процессе принятия решений

Темой настоящего ежегодного доклада за 1997 год является "руководство сельскохозяйственными исследованиями". Руководство может быть определено как способ, посредством которого осуществляется направление и руководство системой или организацией. В качестве такового оно является ключевым фактором, определяющим эффективность деятельности сельскохозяйственных исследовательских систем и организаций. Повышенное внимание к вопросу о руководстве объясняется огромными изменениями, происходящими в организационной среде.

Изменение роли рынка, правительства и общества привели, соответственно, к пересмотру сфер их ответственности. В то же время реформы в государственном секторе выдвигают новые требования к открытости, отчетности и эффективности сельскохозяйственных исследований, финансируемых за счет государственных средств.

С оперативной точки зрения руководство является рамками, в которых принимаются решения. Обычно характеризуясь иерархической структурой, руководство включает политические решения,



## Новая стратегия

### Укрепление сельскохозяйственных исследовательских организаций для решения проблем 21-го века

#### *Пересмотренная стратегия ИСНАРа на 1998-2002 годы*

В 1997 году ИСНАР пересмотрел свою организационную стратегию. Этот процесс осуществлялся на основе широкого участия заинтересованных сторон под руководством нового Генерального директора ИСНАРа и при поддержке Попечительского совета. Основная работа проводилась сотрудниками ИСНАРа с привлечением партнеров и других заинтересованных сторон как в развитых, так и развивающихся странах. Совместно они взглянули на следующее столетие, начало нового тысячелетия, на проблемы и возможности, которые, вероятно, возникнут в области сельскохозяйственных исследований в развивающихся странах. Выработанная в результате этого стратегия подтверждает уникальную роль ИСНАРа в организационном развитии сельскохозяйственных исследований. Согласно ей ниша ИСНАРа определяется как работа с руководителями исследований и работниками директивных органов для решения проблем на передних рубежах разработки политики, организационных и управленческих аспектов сельскохозяйственных исследований. В ней также характеризуются четыре проблемные направления, на которых будет сконцентрирована работа ИСНАРа в предстоящие годы.

#### *Стратегические цели*

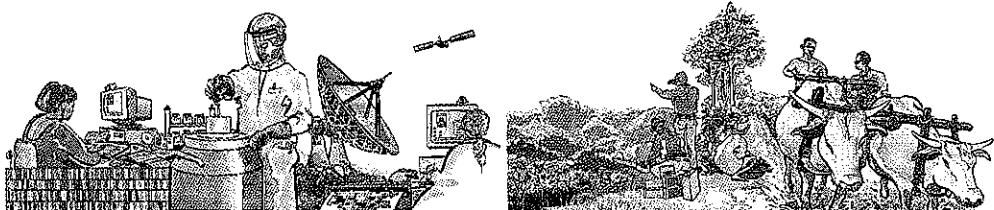
ИСНАР определил три стратегические цели своей работы на основе оценки внешней среды, тенденций в рамках Национальных систем сельскохозяйственных исследований (НАРС) и Консультативной группы по международным сельскохозяйственным исследованиям (КГМСХИ) и своих собственных сильных и слабых сторон:

1. укрепление потенциала национальных сельскохозяйственных исследовательских организаций и систем в плане эффективного реагирования на потребности клиентов и возникающие проблемы;
2. расширение глобальных знаний в области политических, организационных и управленческих аспектов сельскохозяйственных исследований;
3. облегчение доступа к этим знаниям.

принимаемые правительством, приоритеты, устанавливаемые для системы сельскохозяйственных исследований, и, наконец, решения по определению программ, принимаемые на уровне исследовательской организации. Эффективное руководство обеспечивает отражение интересов соответствующих заинтересованных сторон на соответствующем уровне и предоставление заинтересованными сторонами информации, необходимой для решения конкретной задачи. Одним из важных аспектов руководства является принятие решения о том, кто должен участвовать на каждом уровне принятия решений. Другим аспектом является укрепление связей между различными уровнями.

## Идеи, лежащие в основе сельскохозяйственных исследований

В основе нынешних изменений руководства сельскохозяйственными исследованиями лежат некоторые смежные идеи. Во-первых, повсюду правительства ставится под вопрос государственный статус сельскохозяйственных исследований. Большой дефицит и структурные корректировки привели к образованию глубоких "дыр" в бюджетах многих государств; а теории государственного управления указывают на то, что многие государственные организации были бы более эффективными, если бы они действовали в большей мере как частные предприятия. Вместе с тем, в развивающихся странах сложно полагаться



## Новая стратегия

Деятельность ИСНАРА будет целиком направлена на достижение этих целей и решение задач КГМСХИ более высокого порядка: достижение продовольственной безопасности и экологической устойчивости и ликвидацию бедности.

### Четыре направления, 1998-2002 годы

**Направление 1. Глобализация и ее последствия для сельскохозяйственных исследований.** В рамках этого направления работа будет нацелена на то, чтобы посмотреть, каким образом НАРС (или группы НАРС) могут скорректировать свою политику и исследовательские работы в свете изменяющихся условий конкуренции на международных рынках и новых возможностей в плане обмена технологиями и знаниями.

**Направление 2. Руководство и управление организационными изменениями.** Работа будет сконцентрирована на i) разработке усовершенствованных механизмов, позволяющих заинтересованным сторонам, в том числе женщинам, оказывать влияние на систему исследований, ii) выработке соответствующих механизмов обратной связи с заинтересованными сторонами, и iii) анализе внутренних механизмов руководства в рамках системы исследований. Любое изменение само по себе является трудным вопросом для любых организаций, как государственных, так и частных. С точки зрения теории управления ИСНАР будет углублять свои знания о процессах изменений в НАРС и предлагать руководящие принципы, концепции и инструменты для содействия организационным изменениям и развитию.

**Направление 3. Новые технологии для сельскохозяйственных исследований.** Стремление получить отдачу от новых технологий требует того, чтобы работники директивных органов, руководители исследований и ученые обладали новым опытом и знаниями и брали на себя новые обязанности. На этом фоне ИСНАР будет изучать, каким образом изменяется политика в области подготовки кадров в свете развития новых технологий, в частности биотехнологии и информационной технологии, каким образом устанавливаются юридические рамки защиты информации и новшеств и как принимаются решения об использовании или отклонении новых исследовательских инструментов или технологий.

**Направление 4. Сельское хозяйство и окружающая среда.** Работа ИСНАРА в этой области будет основываться на межсекторальном подходе, посредством разработки инструментов планирования, анализа управленческих проблем, возникающих в связи с исследованиями производственных факторов (например, почвы и водных ресурсов), и изучения путей интеграции потребителей, не связанных с сельским хозяйством, в процесс планирования и оценки сельскохозяйственных исследовательских программ.

на рыночные механизмы в плане руководства сельскохозяйственными исследованиями. В этих странах жизнь более 50 процентов населения может зависеть от сельскохозяйственного производства. Кроме того, большинство из них являются мелкими производителями, которые составляют наиболее бедную и обладающую наименьшими правами группу общества. Основываясь на рынке, исследования могут характеризоваться тенденцией уделения первоочередного внимания потребностям ограниченного круга лиц, обладающих экономической и политической силой.

Во-вторых, организационная децентрализация и участие фермеров в руководстве все в большей мере рассматривается в качестве способа повышения эффективности сельскохозяйственных исследований, особенно их прикладного характера. При наличии местного административного потенциала или возможности его укрепления децентрализация может способствовать созданию более быстро реагирующих и подотчетных организаций с самого низу. Механизмы участия могут быть сгруппированы в рамках двух широких категорий: "право голоса" и "право выхода". *Право голоса* дает бенефициариям возможность высказаться при принятии решений по вопросам оказания услуг. Например, фермеры могут быть членами комитетов по исследовательским программам с правом голоса. Механизмы *права выхода* являются способом введения конкуренции в сферу оказания услуг. Иными словами, бенефициарии могут обратиться к услугам другой службы, если они не удовлетворены предоставляемыми услугами.

В рамках процесса широкого участия возникают вопросы, связанные с тем, *чей* голос будет услышан, *на каком* уровне и *каким образом* такой вклад будет учтен при определении направлений исследовательской работы, отвечающих целям государственной политики. Дилемма состоит в том, что обладающие хорошим потенциалом группы обычно имеют больше всего возможностей для создания ассоциаций и получения от них отдачи. Могут потребоваться альтернативные

способы обеспечения того, чтобы голос недостаточно представленных групп, таких как женщины и беднейшие фермеры, был услышан в рамках процесса широкого участия.

В-третьих, расширение направлений сельскохозяйственных исследований и изменение роли государственного и частного секторов лежат в основе изменений в области руководства. Сельскохозяйственные исследования в настоящее время охватывают социальные, экономические и экологические проблемы, а также производственные задачи. К ним необходимо подходить, исходя из более широкой социальной перспективы. Для решения столь обширных задач необходимо принятие решений на уровне государственной политики, а также соответствующий вклад со стороны растущего числа заинтересованных сторон на общинном уровне. Все большая роль частного сектора в некоторых видах сельскохозяйственных исследований, например, в растениеводстве, является результатом все большей защиты прав интеллектуальной собственности. Это может позволить высвободить ресурсы государственного сектора, с тем чтобы сконцентрироваться на более сложных и долгосрочных задачах, включая задачи, направленные на решение вопросов бедности и устойчивого развития.

#### **Механизмы руководства: примеры и новшества**

Примеры механизмов руководства, используемых в сельскохозяйственных исследованиях, могут быть отнесены к трем уровням: уровень национальной системы сельскохозяйственных исследований (НАРС), уровень исследовательской организации и региональный и международный уровни. На уровне НАРС лишь в немногих странах имеются руководящие органы, способные осуществлять руководство всем спектром организаций, занимающихся сельскохозяйственными исследованиями в стране. Опыт центральных органов, занимающихся руководством сельскохозяйственными исследованиями, до сих пор остается неоднозначным. Двумя видами центральных органов являются исследовательские корпорации и советы по сельскохозяйственным исследованиям.

На уровне исследовательской организации некоторые стандартные инструменты руководства могут способствовать повышению эффективности деятельности и ответственности. Они включают советы управляющих, финансовое управление и аудит, а также внешние проверки. Советы являются ключевым звеном между организацией и внешней средой. Эффективность советов и их способность предвидеть варианты будущего развития и осуществлять руководство в значительной мере определяются их составом и продолжительностью работы их членов в совете. Второй инструмент руководства - финансовое управление и аудит - выполняет также функцию надзора и отчетности. По своей сути аудит является независимой проверкой правильности отражения руководством финансовой деятельности организации. В рамках внешней проверки группа экспертов изучает организацию (или программу, или проект), с тем чтобы оценить эффективность ее деятельности и вынести рекомендации в плане усовершенствования. Для заинтересованных сторон ценность этого механизма заключается в том, что использование группы квалифицированных лиц извне позволяет получить свежий глубокий взгляд на рассматриваемые виды деятельности.

На региональном уровне возникает ряд новых механизмов руководства сельскохозяйственными исследованиями. Они варьируются от профессиональных ассоциаций и сетей обмена научной информацией до полностью интегрированных сельскохозяйственных исследовательских программ, таких как региональные исследовательские институты. Сторонники регионализации указывают на возможности повышения эффективности исследований посредством задействования "эффекта масштаба" и более широкого географического охвата, накопления критической массы ресурсов и более широкого обмена опытом и технологиями. Однако опыт показывает, что воспользоваться этими преимуществами не так просто. Во-первых, это связано с тем, что региональные инициативы требуют проведения переговоров и достижения

консенсуса при принятии решений. Во-вторых, расходы на проведение мероприятий могут быть весьма высокими. В-третьих, национальные представители в региональных органах могут быть не в состоянии отразить весь спектр мнений национальных заинтересованных сторон или они могут не располагать юридическими полномочиями для принятия некоторых необходимых решений.

На международном уровне Консультативная группа по международным сельскохозяйственным исследованиям обеспечивает пример более широкого вовлечения заинтересованных сторон в вопросы руководства. Представители НАРС развивающихся стран оказывают все большее влияние на направление деятельности Консультативной группы по международным сельскохозяйственным исследованиям и приоритеты. Подобный вклад можно рассматривать в качестве использования подходов на основе широкого участия в планировании международных сельскохозяйственных исследований.

### Заключительная часть

Руководство всегда являлось решающим фактором, определяющим эффективность деятельности сельскохозяйственной исследовательской организации. Для сельскохозяйственных исследований в развивающихся странах задача заключается в том, чтобы внедрить механизмы руководства, учитывающие мнение соответствующих заинтересованных сторон на оптимальном уровне принятия решений. В настоящем годовом докладе за 1997 год освещаются некоторые подходы к руководству, которые наиболее широко используются в промышленно развитых и развивающихся странах. Вместе с тем, условия в каждой развивающейся стране являются уникальными. Это требует новаторского подхода к вопросам руководства. Это также подчеркивает необходимость нахождения новых решений с учетом местной культуры и традиций.

Задача ИСНАРа заключается в укреплении эффективности работы сельскохозяйственных исследовательских систем в развивающихся странах. С этой целью ИСНАР осуществляет исследования и предоставляет услуги в таких областях, как выработка политики, организация и управление вместе с национальными партнерами и заинтересованными сторонами.

#### Основные моменты деятельности ИСНАРа в 1997 году

1. В течение последнего года осуществления практического проекта по улучшению связи между исследованиями, передачей технологий и ассоциациями фермеров представителями сельскохозяйственных организаций Сенегала, Мали, Танзании и Зимбабве были внедрены методы планирования связей на основе исследований, проводившихся ИСНАРом с конца 80-х годов.
2. ИСНАРом и Японским международным исследовательским центром сельскохозяйственных наук (ЯМВЦСХН) начато осуществление пятилетнего проекта подготовки кадров в области сельскохозяйственной биотехнологии и информации. В его рамках старшим руководящим работникам, занимающимся вопросами исследования в странах Азии, будет предложен ряд краткосрочных курсов подготовки в области биотехнологии и информации.
3. Для обеспечения эффективного и устойчивого использования природных ресурсов необходимо укрепить взаимодействие между учеными и работниками директивных органов, занимающимися вопросами рационального использования природных ресурсов. В этом заключался вывод консультации, состоявшейся в Маастрихте, Нидерланды. Участники обратились с призывом к ученым более конкретно адресовать свои результаты работникам директивных органов, а работникам директивных органов следует привлекать ученых в качестве советников при проведении реформ.
4. 375-страничная тематическая область ИСНАРа во всемирной сети Интернет стала многоязычным широко консультируемым источником информации по широкому кругу вопросов, связанных с работой ИСНАРа. Статистические данные показывают, что в 1997 году люди из самых разных стран мира обращались к страницам ИСНАРа почти 100 000 раз.
5. В предметных исследованиях по шести странам, проведенным в рамках проекта "Университеты и НАРС", отмечены некоторые ключевые задачи расширения вклада университетов в ориентированные на развитие исследования. Национальными руководящими комитетами начато осуществление планов действий, которые были разработаны в ходе проекта и обсуждены как на национальных, так и международных семинарах.
6. Тремя сельскохозяйственными исследовательскими институтами в Латинской Америке начата разработка комплексной системы планирования, мониторинга и оценки своих исследовательских проектов. В рамках этого проекта десятки национальных сотрудников прошли подготовку в этих областях.
7. В рамках продолжающегося сотрудничества между ИСНАРом и Институтом сельскохозяйственных исследований Кении (КАРИ) основной упор в этом году был сделан на установление приоритетов Института при проведении исследований в области рационального использования природных ресурсов. Разработанная процедура основывается на восьмиступенной методологии, созданной ранее для установления приоритетов при проведении исследований по отдельным культурам и животным.
8. Исламская Республика Иран и ИСНАР разработали стратегию ускоренного развития потенциала в области управления информацией и информационной технологии в рамках НАРС в Иране.
9. Посредническая биотехнологическая служба (ИБС) при ИСНАРе завершила осуществление в Чили совместного проекта на основе сотрудничества, нацеленного на разработку и апробирование аналитического метода для использования работниками национальных директивных органов и учеными при установлении приоритетов в рамках национальной программы сельскохозяйственных биотехнологических исследований в Чили.
10. ИСНАР и Институт природных ресурсов Соединенного Королевства (ИПР) изучали вопрос включения рыночного подхода в сельскохозяйственные исследования. На основе исследований по трем странам в рамках проекта была проведена оценка нынешнего состояния дел и предложены области для усовершенствования.
11. ИСНАР провел оценку проекта, направленного на приспособление успешного подхода "новые школы фермеров" к условиям Восточной Африки. Предполагается, что фермеры, закончившие "школу", используют полученные ими новые навыки при выращивании различных культур и вносят вклад в укрепление потенциала на уровне фермерских общин.
12. В рамках исследования определения эффективности и процедур оценки, используемых руководителями в 14 международных центрах сельскохозяйственных исследований Консультативной группы по международным сельскохозяйственным исследованиям (КГМСХИ), проведен анализ целей, критериев и мер, используемых в протоколах этих центров, и приводятся примеры большинства используемых форм.
13. В новом руководящем принципе управления исследованиями, выпущенном ИСНАРом и Национальным институтом сельскохозяйственных исследований Марокко (ИИРА), определяется способ организации исследований в рамках региональных исследовательских программ.



## رسالة المركز الدولي للبحوث الزراعية

يهدف المركز الدولي للبحوث الزراعية (المشار إليه فيما بعد باسم المركز) هي تعزيز أداء أنظمة البحوث الزراعية في البلدان النامية. وتحقيقاً لهذه الغاية، يقوم المركز بإجراء البحوث وتقديم الخدمات في مجالات السياسات والتنظيم والإدارة بالتعاون مع الشركاء الوطنيين والجهات المساهمة.

### أضواء على أنشطة المركز في عام ١٩٩٨

- ١- في السنة النهائية من مشروع موجه للأغراض العملية يهدف إلى توثيق العلاقات فيما بين البحث ونقل التكنولوجيا وربطات المزارعين، وضع ممثلو المنظمات الزراعية في السنغال ومالي وتنزانيا وزمبابوي موضع التنفيذ طرق تخطيط وتوثيق هذه العلاقات استناداً إلى الدراسات التي أجراها المركز منذ أواخر الثمانينات.
- ٢- دشّن المركز ومركز البحوث الدولي الياباني للعلوم الزراعية مشروع تدريب لمدة خمسة أعوام في مجال التكنولوجيا الحيوية والمعلومات. ويشمل المشروع تقديم سلسلة من الدورات التدريبية القصيرة لفائدة المسؤولين الرئيسيين الآسيويين في مجال التكنولوجيا الحيوية والمعلومات.
- ٣- يجب تعزيز التفاعل بين الباحثين في مجال إدارة الموارد الطبيعية وواضعي السياسات بغية تحقيق استخدام فعال ومستفيد للموارد الطبيعية. تلك هي خلاصة مشاورات جرت في مدينة ماستريخت بهولندا. وحث المشاركون العلماء على توجيه نتائج أعمالهم إلى واضعي السياسات، وحثوا واضعي السياسات على أن يضعوا العلماء داخل دائرة مستشاريهم في شؤون الإصلاحات.
- ٤- أصبح موقع المركز المكون من ٣٧٥ صفحة مصدر معلومات متعدد اللغات على الشبكة العالمية، ويرجع إليه الكثيرون للتسهيل من معلومات عن نطاق واسع من الموضوعات المتصلة بأنشطة المركز. وتشير الإحصائيات إلى أن الزوار من جميع أنحاء العالم قد "دخلوا" على صفحات المركز زهاء ١٠٠.٠٠٠ مرة.
- ٥- إن الدراسات القطرية الست التي جرت في إطار مشروع "جامعات أنظمة البحوث الزراعية الوطنية" سلطت الأضواء على بعض التحديات الرئيسية لتحسين إسهامات الجامعات في البحوث الموجهة لأغراض التنمية. وشرعت لخان التوجيه الوطنية التي طورت خطط العمل التي أعدت خلال المشروع، ونوقشت في إطار حلقات عمل وطنية ودولية.
- ٦- شرعت ثلاثة معاهد للبحوث الزراعية في أمريكا اللاتينية في وضع نظام متكامل لتخطيط مشاريع بحوثها ومتابعتها وتقييمها وتلقى العشرات من الموظفين الوطنيين تدريباً في هذه المجالات في إطار المشروع.
- ٧- كان تحديد أولويات البحث للمعهد الكيني للبحوث الزراعية في مجال إدارة الموارد الطبيعية محسور التعاون المتواصل بين المركز والمعهد الكيني خلال هذا العام. وتستند الطريقة المعتمدة إلى منهجية من ثماني خطوات صممت في السنوات السابقة لتحديد الأولويات في مجال البحوث المتصلة بالسلع الزراعية.
- ٨- وضعت جمهورية إيران الإسلامية والمركز استراتيجية للإسراع في تطوير القدرات في مجال إدارة المعلومات وتكنولوجيا المعلومات في نظام البحوث الزراعية الوطني في إيران.
- ٩- أكملت مصلحة التكنولوجيا الحيوية الوسيطة التابعة للمركز مشروعاً تعاونياً في شيلي لاستحداث واختبار أداة للتخلص من مساعدة واضعي السياسات والباحثين الوطنيين على تحديد أولويات البرنامج الشبلي لبحوث التكنولوجيا الحيوية الزراعية الوطنية.
- ١٠- قام المركز ومعهد الموارد الطبيعية في المملكة المتحدة بدراسة كيفية إدراج الاعتبارات المتصلة بالسوق في البحوث الزراعية ومن خلال ثلاث دراسات قطرية، جرى في إطار المشروع تقييم للوضع الراهن واقتُرحت مجالات تحسينه.
- ١١- قام المركز بتقييم مشروع لتكييف نهج "مدرسة حقول المزارعين" مع الظروف السائدة في شرقي أفريقيا. ويبدو أن المزارعين الذين تخرجوا في "المدرسة" يطبقون مهاراتهم المكتسبة حديثاً على عديد من المواد الزراعية، وساهموا في بناء القدرات على الصعيد المحلي.
- ١٢- تقدم دراسة تقييم الأداء وإجراءات المكافأة التي يتبعها المشرفون في ١٤ من مراكز البحوث الزراعية الدولية التابعة للمجموعة الاستشارية للبحوث الزراعية تحليلاً للأهداف والمعايير والتدابير المستخدمة في بروتوكولات المراكز. وتعطي أمثلة لمعظم النماذج المستخدمة.
- ١٣- إعداد دليل جديد لإدارة البحوث وضعه المركز والمعهد الوطني للبحوث الزراعية في المغرب يعرض طريقة لتنظيم البحوث داخل برامج البحوث الإقليمية.

## خلاصة

ما فتى التسيير الرشيد يمثل عاملا حساسا في تحديد أداء أي مؤسسة للبحوث الزراعية. ويكمن التحدي - بالنسبة للبحوث الزراعية في البلدان النامية، يكمن التحدي في تبني آليات التسيير الرشيد التي تعرب عن أصوات الجهات المساهمة ذات الصلة على أنسب مستوى من مستويات صنع القرارات. ويسلط هذا التقرير السنوي لعام ١٩٩٧ الضوء على بعض طرق التسيير الرشيد التي يشيع استعمالها كثيرا في البلدان الصناعية والنامية. غير أن بيئة كل بلد نام فريدة من نوعها، مما يستدعي الابتكار في مجال التسيير الرشيد واستكشاف حلول جديدة تأخذ في الاعتبار الثقافة والتقاليد المحلية.

الأول لذلك هو أن المبادرات الإقليمية تستدعي التفاوض وتوافق الآراء عند صنع القرارات. والثاني هو أن تكاليف العمليات يمكن أن تكون مرتفعة. أما الثالث فهو احتمال تعذر تعبير الممثلين الوطنيين عن مختلف آراء الجهات الوطنية المساهمة لدى الهيئات الإقليمية أو احتمال عدم امتلاكهم السلطة القانونية لاتخاذ بعض القرارات اللازمة.

وعلى الصعيد الدولي، تقدم المجموعة الاستشارية الدولية للبحوث الزراعية مثالا للمشاركة المتزايدة للجهات المساهمة في التسيير الرشيد. وقد كسبت أنظمة البحوث الزراعية الوطنية في البلدان النامية نفوذا لتوجيه جدول أعمال المجموعة الاستشارية الدولية للبحوث الزراعية وأولوياتها. ويمكن اعتبار هذا الإسهام بمثابة تطبيق لنهج المشاركة في تخطيط البحوث الزراعية الدولية.

وفي إطار عملية المشاركة، تطرح تساؤلات حول من يتحدث وفي أي مستوى وكيف يمكن الإسهام في وضع جدول أعمال البحوث التي تستجيب لأهداف السياسة الحكومية. والمعضلة هي أن المجموعات المقترحة هي التي تستطيع عادة تشكيل جمعيات والاستفادة منها. ولربما ثمة حاجة لسبل بديلة لضمان الاستماع إلى صوت المجموعات الأقل تمثيلاً، مثل النساء والفقراء من المزارعين.

ثالثاً، ينطوي توسيع نطاق برامج البحوث الزراعية وتغيير أدوار القطاعين الخاص والعام على تغيير في إدارة البحوث، فالبحوث الزراعية تشمل الآن أهدافاً اجتماعية واقتصادية وبيئية، إضافة إلى أهداف الإنتاج. وينبغي تناولها كلها من منظور اجتماعي واسع. ويتطلب تناول هذه الأبعاد بصورة مناسبة اتخاذ الحكومات قرارات سياسية ومشاركة عدد أكبر من الجهات المعنية على صعيد المجتمع المحلي. ودور القطاع الخاص المتزايد في بعض أنواع البحوث الزراعية، مثل تربية النباتات نتيجة لتعزيز حماية حقوق الملكية الفكرية. ومن شأنه أن يحرر طاقات القطاع العام للتركيز على مهام بعيدة المدى وأكثر تعقيداً، بما فيها المهام المتصلة بالفقر والديمومة.

#### آليات التسيير الرشيد: أمثلة وابتكارات

يمكن تقديم أمثلة على آليات التسيير الرشيد في مجال البحوث الزراعية من خلال ثلاثة مستويات: مستوى أنظمة البحوث الزراعية الوطنية، ومستوى مؤسسة البحث، والمستويين الدولي والإقليمي. فعلى مستوى أنظمة البحوث الزراعية الوطنية، تعتبر قليلة تلك البلدان التي تملك هيئات إدارية قادرة على ممارسة السلطة على مجموعة متنوعة من العناصر المشاركة في البحوث الزراعية على الصعيد الوطني. وكانت تجربة الهيئات العليا في ميدان الإشراف على

البحوث الزراعية متفاوتة حتى الآن. وتمثل مؤسسات البحوث ومجالس البحوث الزراعية نوعين من هذه الهيئات العليا.

على صعيد مؤسسات البحوث، يمكن أن تساعد بعض الأدوات القياسية للتسيير الرشيد في تحسين أداء المؤسسات ومساءلتها. وتشمل: الهيئات الإدارية والإدارة المالية والمراجعة الحسابية والمراجعة الخارجية. وتشكل الهيئات صلة وصل بين المؤسسة وبيئتها الخارجية. وتتوقف فعالية الهيئات وقدرتها على حسن الفهم والتوجيه على تشكيلها واستمرارية العضوية فيها. والأداة الثانية للتسيير الرشيد هي الإدارة المالية والمراجعة الحسابية التي تعتبر أيضاً وظيفة إشراف ومساءلة. فالمراجعة الحسابية هي أساساً للتحقق من أن عرض هيئة الإدارة للأداء المالي للمؤسسة عرض نزيه. وفي إطار المراجعة الخارجية، تقوم هيئة من الخبراء بدراسة مؤسسة (أو برنامج أو مشروع) بغية تقييم أدائها وتقديم التوصيات لأغراض تحسين الأداء. وتتمثل قيمة هذه الآلية بالنسبة للجهات المساهمة في أن مجموعة مطلعة من الأشخاص الخارجيين تنظر إلى الأنشطة قيد الاستعراض بعيون جديدة وملتزمة.

أما الصعيد الإقليمي فيشهد بروز آليات جديدة في مجال الإشراف على البحوث الزراعية، تتراوح بين الرابطة المهنية، وشبكات تبادل المعلومات العلمية، وبرامج متكاملة كلياً في البحوث الزراعية، مثل مؤسسات البحوث الإقليمية. ويركز أنصار النظام الإقليمي على قدرته على تعزيز أداء البحوث من خلال تحقيق وفورات كبيرة وتغطية جغرافية واسعة، وقدرات كبيرة من الموارد البشرية والمادية وزيادة في تقاسم الخبرات والتكنولوجيات. غير أن التجربة تشير إلى أن الاستفادة من هذه المزايا ليس بالأمر الهين. والسبب

هناك بعض الأفكار التي تستند إليها التغييرات في مجال التسيير الرشيد للبحوث الزراعية، ففي المقام الأول، تتساءل الحكومات في كل مكان عن جدوى القطاع العام في مجال البحوث الزراعية. فقد خلف العجز الهائل والتكليف الهيكلي ثغرات واسعة في ميزانيات العديد من الدول؛ وتوحي نظريات الإدارة العمومية بأن أداء بعض الوكالات العامة سيكون أحسن لو تم التعامل معها كمؤسسة خاصة. غير أن الاعتماد على آليات السوق لتنفيذ برامج البحوث الزراعية ليس بالأمر البسيط في الدول النامية، فقد يعتمد أكثر من ٥٠ في المائة من السكان على الإنتاج الزراعي لكسب عيشهم. علاوة على ذلك، يمثل معظم هؤلاء السكان منتجين صغارا ويشكلون أفقر قطاعات المجتمع وأهونها. فمن شأن استناد البحوث إلى آليات السوق أن يؤدي إلى تركيز أكبر على احتياجات القلعة القليلة التي تملك النفوذ الاقتصادي والسياسي.

ثانياً، غدت لامركزية المؤسسات ومشاركة المزارعين في التسيير الرشيد من السبل المطروقة أكثر فأكثر لتحسين أداء البحوث الزراعية، وتحديد ارتباطها بالواقع. فأيما توجد قدرات إدارية محلية أو قدرات يمكن تعزيزها، تساهم اللامركزية في بناء مؤسسات أكثر تجاوبا ومساءلة انطلاقاً من القاعدة نحو القمة. ويمكن تقسيم آليات المشاركة إلى فئتين كبيرتين: "الكلمة" و"الخروج". أما "الكلمة" فتمنح للمستفيدين إمكانية إبداء الرأي عند إقرار كيفية تقديم الخدمات. إذ يمكن أن يكون المزارعون - على سبيل المثال - من الأعضاء المصوتين في اللجان المعنية ببرامج البحوث. أما آليات "الخروج" فهي التي تدخل التنافس في مجال تقديم الخدمات. وبتعبير آخر، يمكن للمستفيدين أن يبحثوا عن خدمة أفضل في مكان آخر إذا لم تكن الخدمات المقدمة مرضية لهم.



## الاستراتيجية الجديدة

المحاور الأربعة، ١٩٩٨-٢٠٠٢

### المحور ١- العولمة وانعكاساتها على البحوث الزراعية.

سينصب الاهتمام في إطار هذا المحور على كيفية تعديل أنظمة البحوث الزراعية الوطنية (أو مجموعات منها) سياساتها وأنشطتها في مجال البحوث في ضوء تغير شروط المنافسة في الأسواق الدولية، والفرص الجديدة المتاحة لتبادل التكنولوجيا والمعارف.

### المحور ٢- التسيير الرشيد وإدارة التغير المؤسسي.

سيركز العمل الخاص بالتسيير الرشيد على '١' وضع آليات متطورة لتمكين الجهات المساهمة، بما فيها النساء، من التأثير على نظام البحوث؛ و'٢' تصميم آليات مناسبة للاستفادة من التغذية الراجعة من قبل الجهات المساهمة؛ و'٣' تحليل آليات التسيير الرشيد داخل نظام البحوث. ويمثل التغير في حد ذاته تحدياً أمام المؤسسات العامة منها أو الخاصة. واستناداً إلى نظرية الإدارة، سيقوم المركز بتوسيع نطاق معارفه بشأن عمليات التغير في أنظمة البحوث الزراعية الوطنية ليقدّم المبادئ التوجيهية والمفاهيم والوسائل القمينة بتسيير المؤسسات وتطورها.

### المحور ٣- التكنولوجيات الجديدة للبحوث الزراعية.

يستدعي التوق إلى استغلال التكنولوجيا الجديدة استغلالاً مفيداً ومسؤولاً وخبرات جديدة من جانب واضعي السياسات والمشرّفين على البحوث والعلماء. وبالنسبة إلى ما سبق، سيقوم المركز بالنظر في كيفية تغير السياسات المتعلقة بتمتية الموارد البشرية في ضوء التكنولوجيات الجديدة، ولا سيما التكنولوجيا الحيوية وتكنولوجيا المعلومات، وكيفية إرساء الأطر القانونية لحماية المعلومات والمبتكرات، وكيفية اتخاذ القرارات بشأن اعتماد أو رفض أداة للبحث أو تكنولوجيا جديدة.

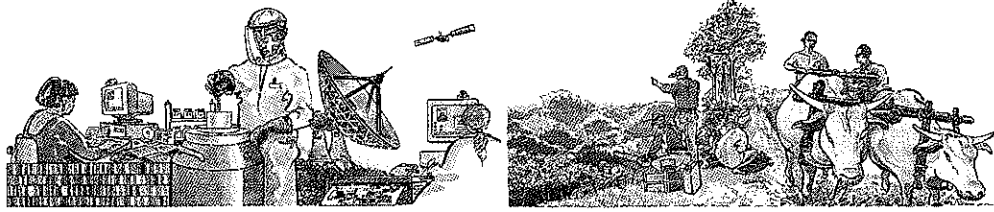
### المحور ٤- الزراعة والبيئة.

سيسلك المركز في هذا المجال نهجاً متعدد القطاعات باستحداث وسائل التخطيط، وتحليل مشاكل الإدارة التي تطرحها البحوث في مجال عوامل الإنتاج (مثل التربة والمياه)، واستكشاف طرق إشراك المستخدمين من غير المزارعين في عملياتي تخطيط وتقييم برامج البحوث الزراعية.

## التسيير الرشيد للبحوث الزراعية: تغير الأدوار في مجال صنع القرارات

يتناول التقرير السنوي لعام ١٩٩٧: "التسيير الرشيد للبحوث الزراعية". ويمكن تعريف التسيير الرشيد بأنه طريقة توجيه أو قيادة نظام أو مؤسسة ما. وهكذا، يمثل التسيير الرشيد عاملاً رئيسياً في تحديد أداء نظم مؤسسات البحوث الزراعية. ويزداد الاهتمام بالتسيير الرشيد بالنظر إلى التغييرات الكبيرة التي تشهدها المؤسسات. فتغير أدوار السوق والحكومة والمجتمع أدى إلى إعادة النظر في مسؤوليات كل منها. وفي الوقت ذاته، أضاف إصلاح القطاع العام ميزة جديدة لشفافية ومساءلة البحوث الزراعية التي يمولها القطاع العام وفعاليتها.

ويمثل التسيير الرشيد - من الناحية العملية - الإطار الذي تتخذ فيه القرارات. ويتراوح، في شكل هرمي عادة، من القرارات السياسية التي تتخذها الحكومة مروراً بالأولويات المحددة لنظام البحوث الزراعية وصولاً إلى برمجة القرارات المتخذة على مستوى مؤسسة البحوث. ويكفل التسيير الرشيد الفعال الإعراب عن مصالح الجهات المساهمة المعنية على المستوى المناسب وإسهامها بالمعلومات اللازمة للاضطلاع بالمهام. ويمثل اختيار المشاركين في كل مستوى من مستويات صنع القرارات أحد أهم جوانب التسيير الرشيد. والجانب الآخر هو إقامة صلات الوصل بين مختلف المستويات.



## الاستراتيجية الجديدة

تعزيز مؤسسات البحوث الزراعية لمواجهة تحديات القرن الواحد والعشرين

استراتيجية المركز المتفحة للأعوام ١٩٩٨-٢٠٠٢

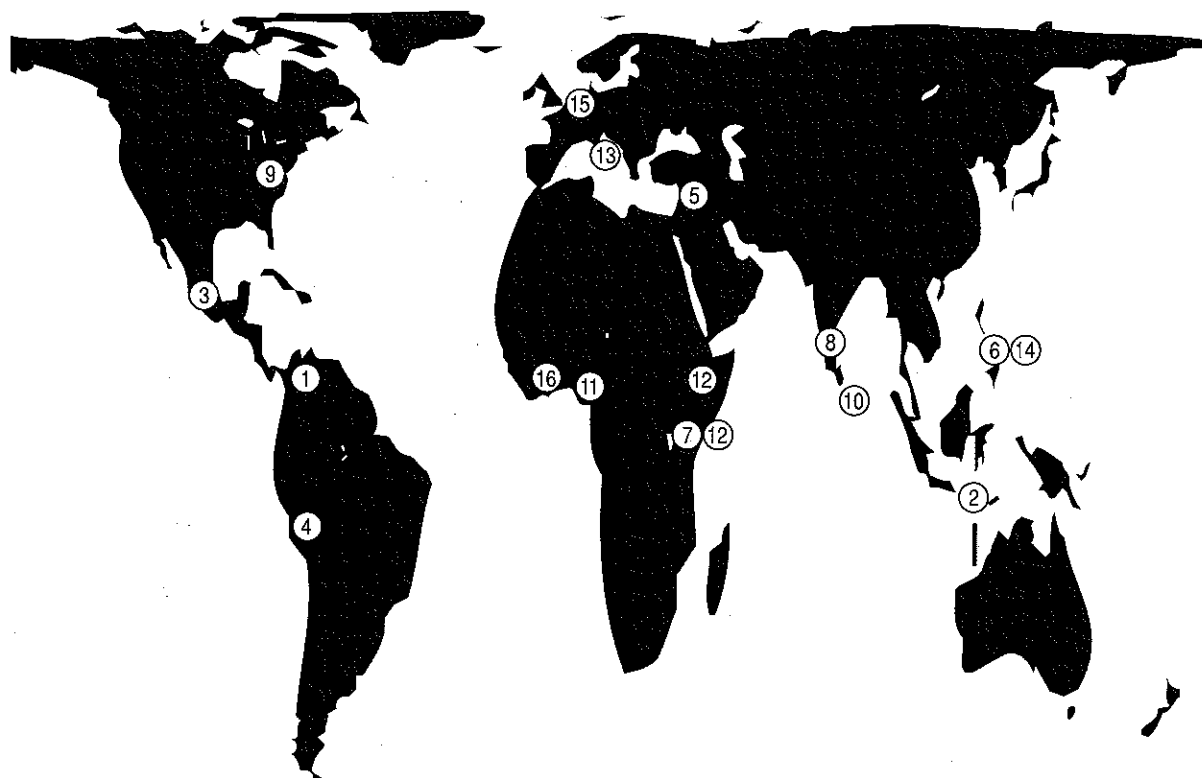
أعاد المركز صياغة استراتيجيته المؤسسية في عام ١٩٧٧. واتسمت العملية بالمشاركة الواسعة تحت قيادة المدير العام الجديد للمركز، وبدعم من مجلس الأمناء. وقاد العملية موظفو المركز بمساهمة من الشركاء والجهات المساهمة الأخرى سواء في الدول النامية والمتقدمة حيث قاموا جميعاً بتوجيه نظرهم صوب القرن المقبل وبداية ألفية جديدة والتحديات والفرص التي يحتمل أن تواجه البحوث الزراعية في البلدان النامية. وتؤكد الاستراتيجية المستخلصة من جديد دور المركز القوي في تنمية مؤسسات البحوث الزراعية، وتحديد مكانته كطرف يعمل مع قيادة البحوث ووضع السياسات لحل المشاكل المطروحة أمام سياسة البحوث الزراعية والتنظيم والإدارة، ونصف محاور أربعة تطرح إشكاليات سينصب اهتمام المركز عليها خلال السنوات المقبلة.

### الأهداف الاستراتيجية

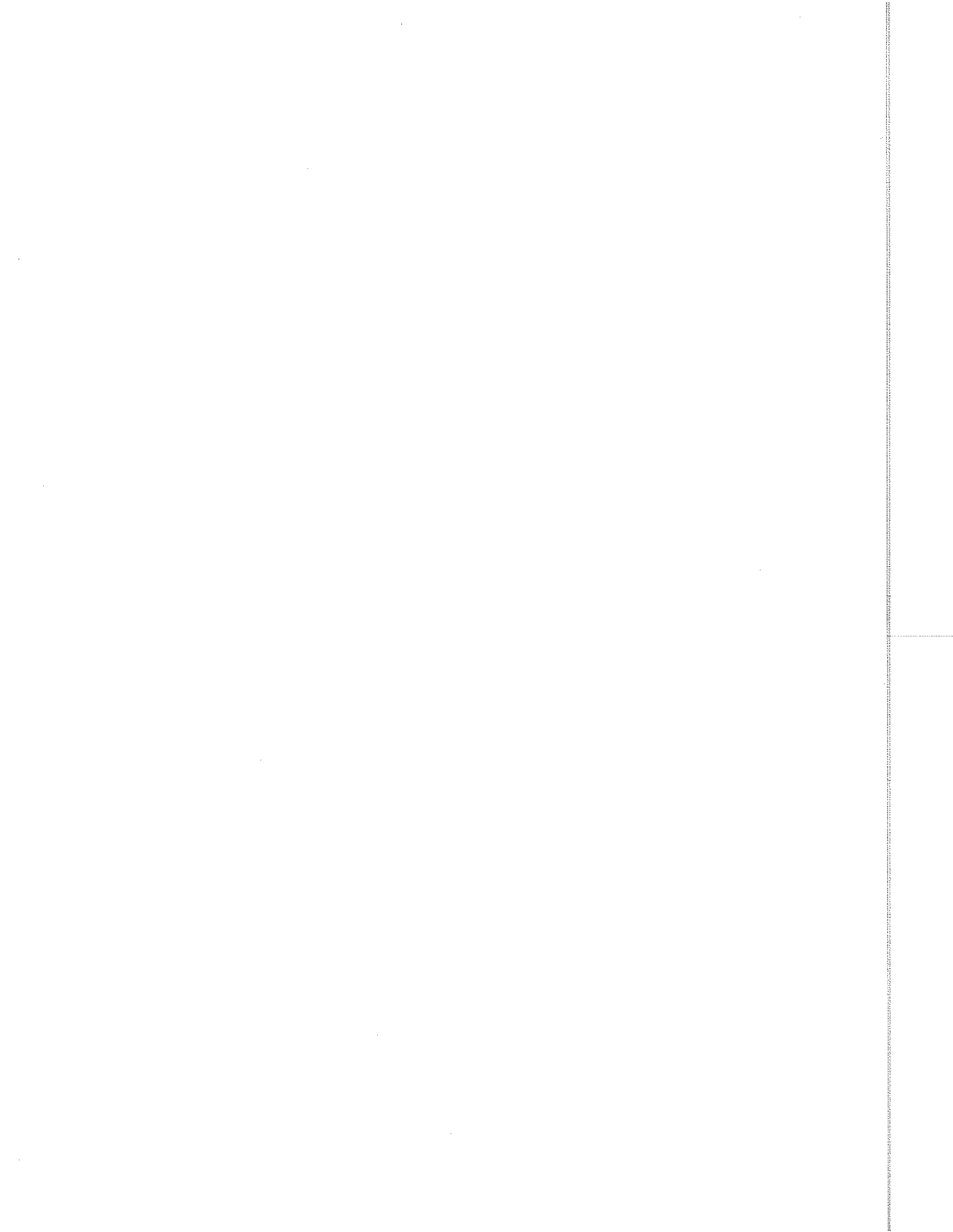
حدد المركز ثلاثة أهداف استراتيجية لعمله تستند إلى تقييم للبيئة الخارجية والتوجهات داخل أنظمة البحوث الزراعية الوطنية، والمجموعة الاستشارية الدولية للبحوث الزراعية، ومواطن قوته وضعفه، وهذه الأهداف هي:

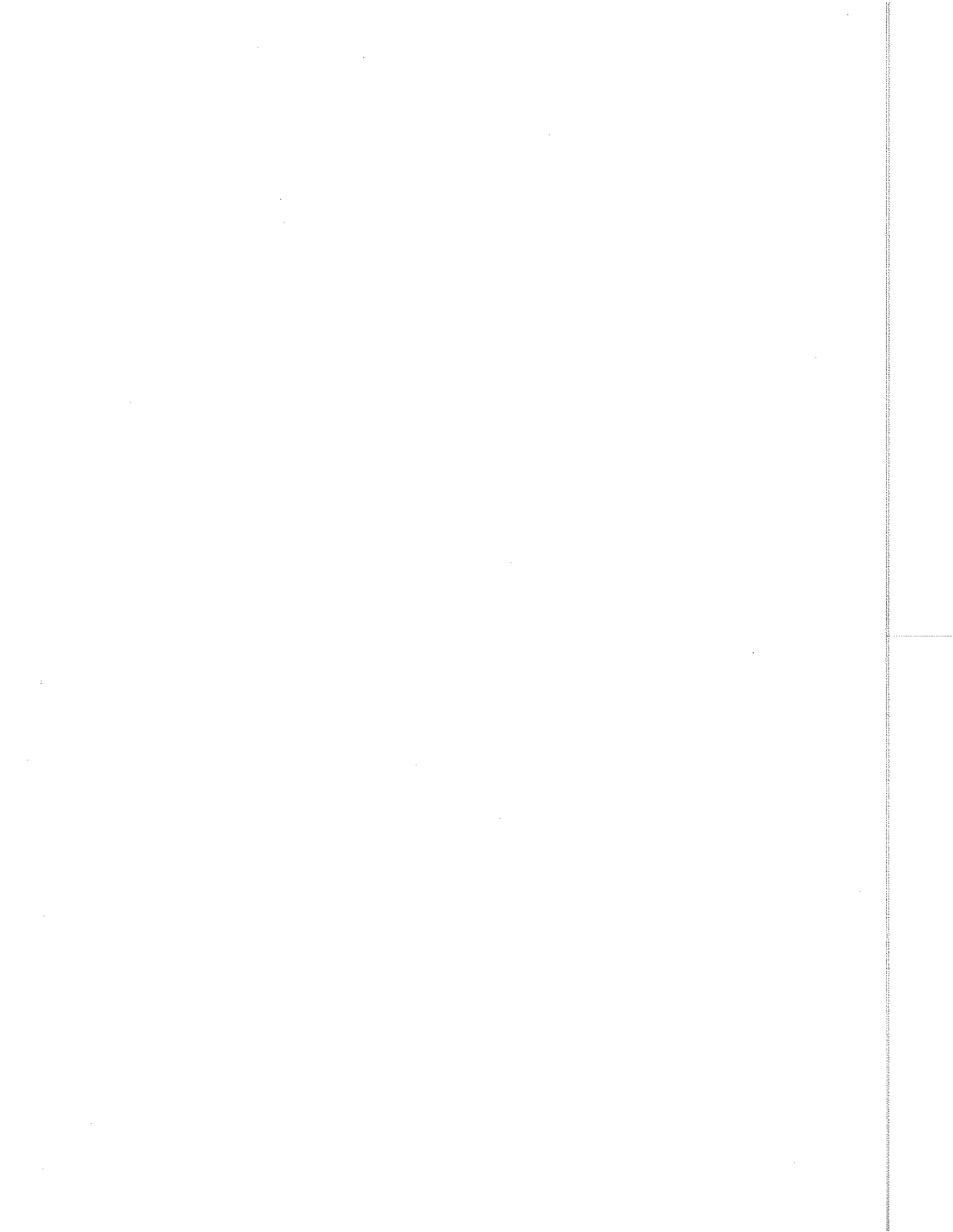
- ١- تعزيز قدرات مؤسسات وأنظمة البحوث الزراعية الوطنية للاستجابة بصورة فعالة إلى حاجيات الزبائن ومواجهة التحديات المستجدة
  - ٢- توسيع المعارف على الصعيد الدولي في مجالات سياسة البحوث الزراعية والتنظيم والإدارة
  - ٣- تحسين الحصول على هذه المعارف
- ستضمم جميع أنشطة المركز لتحقيق هذه الأهداف وكذلك الأهداف الأساسية للمجموعة الاستشارية الدولية للبحوث الزراعية: الأمن الغذائي، وتخفيف الفقر واستدامة البيئة.

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15. ISNAR     International Service for National Agricultural Research, The Hague, The Netherlands
16. WARDA    West Africa Rice Development Association, Bouaké, Côte d'Ivoire







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