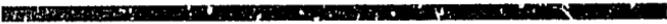


Service through Partnership

A Strategy Summary

ISNAR

International Service for National Agricultural Research



To produce more food and protect their valuable natural resources, developing countries must be able to conduct research. This includes the capacity to adapt and exploit scientific knowledge produced by others. To perform well, agricultural research systems and organizations need to be realistically planned, suitably structured, professionally managed, and adequately funded and staffed. To contribute meaningfully to national development, research must focus on the real problems of the principal users of technology, the farmers.



ISNAR and the CGIAR

It was in recognition of these needs that the International Service for National Agricultural Research was created. ISNAR is an international service organization with a mandate to help developing countries strengthen their national agricultural research. It belongs to a global network of international agricultural research institutions coordinated by the Consultative Group on International Agricultural Research (CGIAR). Founded in 1979, ISNAR has its headquarters in The Hague, The Netherlands.

This booklet summarizes ISNAR's strategy for fulfilling its mandate. The full text of the strategy is presented in a longer document, *Service through Partnership: ISNAR's Strategy for the 1990s*, available from ISNAR headquarters. Complementing the strategy is ISNAR's Medium-Term Plan, also available from headquarters. The plan describes specific ISNAR activities and work themes and outlines how resources will be allocated to them over the period 1994-1998.

National Agricultural Research: Past and Future

Most national agricultural research systems (see Box 1) in developing countries have their origins in the colonial era. Following independence, many countries increased the resources devoted to research to meet rapidly rising demand for food. Aware of the challenge, and encouraged by the early successes of the Green Revolution, donors provided generous assistance. Investment in agricultural research in developing countries rose more than threefold during the 1960s and 1970s. Research stations and laboratories were built, and the number of trained staff quadrupled.

Those days of expansion are over. In the tougher economic climate of the late 1970s and 1980s, funding in real terms stagnated or declined. Rising salary budgets absorbed the cash needed to cover operating costs, hampering scientists' productivity. Salaries and

conditions of service deteriorated, prompting the best staff to seek opportunities elsewhere. Performance suffered and a crisis of confidence ensued, often triggering further cuts. A dangerous spiral of decline now threatens the future of public-sector agricultural research in many countries.

There are, of course, variations within this general picture. The developing world's national agricultural research systems differ considerably in size, stage of development, and other characteristics. Smaller systems tend to experience special difficulties in meeting the broad range of demands placed on them. More mature systems often experience "second generation" problems concerned with managing the mix of resources available to them and improving the efficiency of resource use. As systems mature, their needs become more diverse and specialized, requiring changes in ISNAR's services.

Box 1. What is a national agricultural research system?

A national agricultural research system comprises all a country's entities responsible for organizing, coordinating, or executing research that contributes directly to the development of its agriculture and the maintenance of its natural resource base. Agriculture is understood to include the production of fish and trees, as well as crops and livestock.

The essential functions of a national agricultural research system include:

- defining research policies and objectives and setting priorities
- mobilizing the resources required to meet objectives
- organizing and coordinating various entities to carry out research
- designing and executing research to meet agreed-on objectives
- ensuring that research results reach users
- monitoring and evaluating research results and their impact

What does the coming decade hold for national agricultural research in developing countries? Below we sketch the major trends shaping ISNAR's strategy for the 1990s.

A more complex research agenda

National agricultural research systems will face increasingly complex — and often competing — demands. They will be expected to help increase production of a broader range of commodities for domestic consumption, as well as earnings from both new and traditional exports. At the same time, they will be asked to contribute to natural resource conservation and to improving the lot of the poor. The growing emphasis on resource conservation and equity issues will put more pressure on national systems to conduct research close to the farmer. More and more, research on forestry, agroforestry, fisheries, natural resources, and the environment will be interwoven with crop and livestock research.

Greater institutional complexity

Responding to a more complex research agenda, the national systems are themselves becoming more complex, and will continue to do so in the coming years. A broader range of actors will participate in research. Government organizations will come under growing pressure to find common cause with the private sector and joint ventures between the two will need to increase.

Nongovernmental organizations (NGOs) will share the burden of adaptive research, with special emphasis on the needs of the poor. Universities will be urged to tie their research more firmly to national development needs, making strategic contributions to the work of other institutions.

In these expanded national research systems, government organizations will be expected to retain their leadership role to ensure national development aims are met. They will be required to link and coordinate the work of other actors in research. This means greater emphasis on regulatory and advisory functions. Stronger links will be needed between the components of national research systems, as well as with other relevant institutions such as

policy-making bodies, technology transfer agencies, and technology user groups. Expanding work on natural resource management will require new ways of organizing research, setting priorities, designing programs, and fostering multidisciplinary teamwork.

Increasing dialogue with policymakers

For several reasons, national research systems will have to work more closely with policymakers. First, in a complex and uncertain world, good policies and decisions depend on good information. Increasingly, research organizations will be called on to supply it. Second, for research to have any meaningful impact, the policy environment must be conducive to the adoption of new technologies by users. Third, the flow of funds and other support to national systems will depend critically on the backing of senior policymakers.

Rapid advances in science and technology

Progress in global science and technology will offer new opportunities for developing countries. Biotechnology will transform research methods, shortening the time span required to generate new technology. Computer applications will expand dramatically, improving the management of scientific information and research resources. Satellite technology and geographical information systems will contribute to research on the use of land and natural resources. National systems will have to change, sometimes radically, to take advantage of innovations in these areas.

Increasing regional cooperation

Regional networks and organizations have been promoted strongly in recent years — a trend likely to continue throughout the 1990s. National systems will have to find ways of working effectively with regional programs. They will need to focus their own efforts in areas of comparative advantage, leaving research in other areas to be handled under a network approach. They also

have to ensure that regional activities are relevant to national needs and do not compete with them for resources.

A bleak funding scenario

In a climate of continuing economic austerity, governments in developing countries will find it difficult if not impossible to spend more resources on agricultural research. Nor are traditional donors likely to increase their assistance. They too will face conflicting demands on their limited resources. This bleak outlook underscores the need for national systems to become more efficient in using the resources they have, and more creative in identifying and tapping new funding sources and mechanisms. Future support will depend increasingly on the ability to demonstrate impact from past investments.

ISNAR: A Service to National Systems

ISNAR assists developing countries bring about sustained improvements in the performance of their national agricultural research systems and organizations. Working in partnership with national systems, ISNAR supports their efforts in institutional development, generates and adapts appropriate management technologies, strengthens national managerial skills, and disseminates relevant knowledge and information.

Since it was founded, ISNAR has advised some 50 developing countries. Often its relationship with a country began with a detailed diagnosis of the national system's strengths and weaknesses. This led to a long-term, one-on-one partnership in which ISNAR helped to formulate a national plan for research, implement specific changes, and monitor their impact. These partnerships in comprehensive institutional development are effective, but they are also resource-intensive.

In 1986, to provide a more scientific basis for its advice, ISNAR began to expand its research. Instead of relying largely on the individual experience of its staff, ISNAR now bases its service on

the systematic analysis and synthesis of experiences in different countries and regions. Through its research, ISNAR stays abreast of developments in national systems, anticipates their future needs, and generates and adapts the management technologies needed to improve performance.

As a relatively young center within the CGIAR system, ISNAR remains a small institute. Its core budget in 1992 was US\$6.6 million, while full-time professional staff numbered 44.

Major distinguishing features of ISNAR are presented in Box 2.

Box 2. ISNAR's distinguishing features

- ISNAR's mandate is to strengthen national agricultural research. ISNAR is the only CGIAR center wholly dedicated to this service task.
- ISNAR, as an international service, responds to requests for assistance from developing countries. Working in partnership with national research systems, it explicitly serves their needs and interests.
- ISNAR specializes in public-sector agricultural research management. Its expertise in this area is what distinguishes it from other management institutes and constitutes its comparative advantage.
- ISNAR's service is based on research and experience. Through multidisciplinary research, ISNAR develops and adapts management technologies to improve the performance of national systems. Its advice to them is continually refined in the light of experience.
- ISNAR learns from national systems. It consults national research leaders on their priorities, asks for their feedback on its service to them, and involves them in its research, training, and advisory activities.
- ISNAR is an apolitical, international organization. Its advice and service are impartial and potentially available to all developing countries.

Strategic Directions for the 1990s

Based on its analysis of future trends and needs in national systems, ISNAR has identified five strategic directions to guide its programs and services in the 1990s.

Target services

ISNAR must respond to the changing needs of national systems at different stages of development. It will gradually reduce its assistance with comprehensive institutional development which it has traditionally provided through long-term, one-on-one relationships with individual countries. This will free up resources for a more flexible and cost-effective service of shorter duration, geared to strengthening specific management components in countries with similar problems.

Cover a wider range of research organizations

Taking into account the growing institutional complexity of national systems, ISNAR will work with a wider range of organizations. It will also put more emphasis on advising countries on how to develop system-level agricultural research policies and effective links between organizations.

Strengthen work on research policy

Given the more volatile policy environment of the 1990s, ISNAR will step up its work in the area of research policy. It will strengthen its capacity to advise national research leaders on establishing stronger links with policymakers and their advisors. And it will continue to contribute to the policy dialogue on national agricultural research by providing and analyzing basic information on the evolution of national systems and their changing role in the global research system.

Forge strategic alliances

The number and variety of requests for ISNAR's specialized services far exceed the institute's current delivery capacity. To cater to the growing demand, ISNAR will intensify its efforts to forge strategic alliances with organizations having complementary expertise. These will include management training and consulting institutes, universities, development organizations, other international research centers, and advanced research organizations. They will collaborate with ISNAR on research, training, and product development and delivery.

Seek multipliers

ISNAR will reinforce its efforts to multiply the effects of its work. It will continue to produce tools, guidelines, and training modules for use by national systems and other organizations serving national systems. It will foster the exchange of management expertise and innovations among developing countries through seminars, publications, and cross-country consultancies. Through collaborative research and training it will expand its "invisible college" of individuals who can be called upon to provide services.

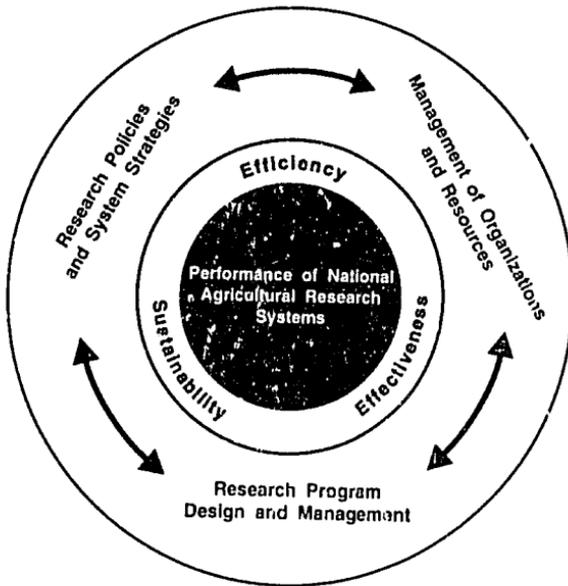
I *SNAR's Services*

ISNAR will continue to strengthen national research through three types of service. Figure 1 shows their key features.

Comprehensive institutional development: 30% of ISNAR core resources

This is a long-term service tailored to the needs of individual systems. The approach taken is holistic, covering all research policy and management components considered critical to improved performance. ISNAR and its partner jointly diagnose the system's strengths and weaknesses, plan institutional development, and implement and monitor the required changes.

Figure 1: Three facets of agricultural research management



ISNAR collaborates with the national system throughout the process, providing advice and training as needed.

The experience, lessons, and feedback obtained from these comprehensive partnerships upgrade ISNAR's capacity to advise other national systems. They also help ISNAR to set its research and training priorities and are of use to other organizations supporting institutional development in national systems.

This service has so far been ISNAR's area of concentration. During the 1990s it will be more sharply targeted to address the needs of medium-sized systems in the early stages of development or undergoing major reform. With its limited budget, ISNAR must maintain a balance between this type of service and the development of management technologies required to achieve a multiplier effect. The number of countries receiving this service will therefore be less than 10 at any one time.

Strengthening research policy and management components: 45% of ISNAR core resources

This shorter-term service, available to a wider range of national research systems, responds to the growing demand for more specialized forms of support. It targets those countries that have a functioning system and core research institutions in place but wish to reinforce specific policy and management components to improve overall performance. This service often provides valuable opportunities to develop and test management tools and technologies.

On receiving a request for this service, ISNAR first consults with national research managers to determine whether the identified component is indeed critical to improving overall performance. If it is, ISNAR then helps them review options and design interventions. It then collaborates in the testing of existing improved approaches and their adaptation to local conditions, or in the development of new approaches if required. These are then available for testing or adapting in other countries, including those receiving ISNAR's comprehensive service.

In this service, ISNAR often works with groups of countries requesting support to improve the same component or cluster of components. These informal networks, usually organized regionally, are a cost-effective way of including small national systems in component strengthening. The needs of small systems therefore receive special attention as part of this service. Larger, more mature systems are also included, enabling other participants to learn from their experience. Larger systems can make a valuable contribution to product development.

Generation and dissemination of knowledge and information: 25% of ISNAR core resources

Directed at both national systems and the wider development and scientific community, this service is designed to generate knowledge and to provide multipliers for ISNAR's work. Through it, ISNAR seeks to create a more favorable policy environment for national research, to spread new knowledge relating to

agricultural research management, and to provide fora for the exchange of experience.

This service comprises several activities. ISNAR provides information on the state of national systems and on selected strategic issues confronting them. It packages and disseminates new information and training products for use by different audiences. And it organizes and participates in seminars, workshops, and conferences.

SNAR's Program

Three broad areas of agricultural research management are covered by ISNAR's program. The first addresses macro-level concerns of research policy and strategies for system development. The second focuses on the management of research itself. The third encompasses the organizational environment in which research is carried out. Together these three areas determine the performance of national research, its sustainability, effectiveness, and efficiency (see figure 1).

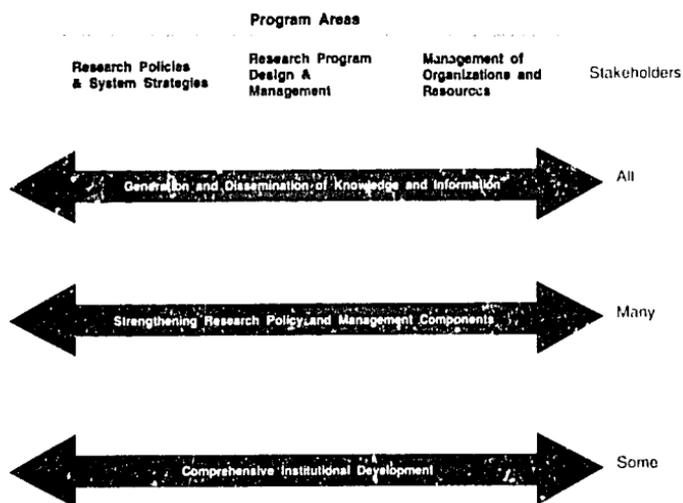
Each program area contains a cluster of research management components. ISNAR's experience has shown these to be the building blocks of comprehensive institutional development. Within the program areas ISNAR carries out research, provides technical advice and support, delivers training, and disseminates knowledge and information on these components. These efforts flow into ISNAR's three services. In turn, work carried out through the services feeds back information on users' needs and experiences (figure 2).

1

Research policies and system strategies

Objective: to help policymakers and research leaders define the mission and goals of their research system, design its structure, plan its development, and set macro-level priorities in line with national development objectives.

Figure 2: Integration of services and program areas



Primary clients: national policymakers and research leaders.

Secondary clients: donors and technical assistance agencies that support the development of national systems and can multiply the effects of ISNAR's work.

Components:

- global and regional cooperation
- links between development policies and research
- science and technology policy for research
- strategic planning
- system-level priority setting and evaluation
- system design and structure
- mobilizing resources for research

Priorities: ISNAR will increase its work in this program area. Priority will be given to helping developing countries develop new mechanisms for mobilizing resources. ISNAR will also emphasize system design and structure, enabling national systems to harness the contributions of new actors on the research scene, including private firms, research foundations, and NGOs. ISNAR will strengthen its capacity to advise national systems on the appropriate division of labor between national, regional, and international efforts, with special attention to the needs of small countries. Finally, the institute will continue to refine its methods of reviewing national systems and assisting with planning. It will seek to package these in ways that enable others to use them with less direct support from ISNAR.



Research program design and management

Objective: to help national research systems develop well-focused, high-quality research programs that address users' needs and generate relevant knowledge and technologies.

Primary clients: national research directors, program leaders, and scientists with managerial responsibilities.

Secondary clients: scientists and trainers in international agricultural research centers and regional organizations; technical assistance staff of development agencies.

Components:

- research program organization
- program formulation, priority setting, and budgeting
- links with external sources of knowledge and technologies
- management of scientific information
- links between research, technology development, and users
- monitoring and evaluation of research

Priorities: A major priority will be to develop improved methods for monitoring and evaluating research. ISNAR will also

emphasize links with external sources of knowledge, and the management of scientific information. Special attention will be given to the implications for program organization and management of expanding research on natural resource management and conservation. ISNAR will maintain its current emphasis on strengthening the links between research and technology users, with special attention to the role of farmers and their organizations in setting the research agenda. Last, the institute will consolidate its work on the development of tools and methods for program formulation and priority setting.

3

Management of organizations and resources

Objective: to help developing countries create sustainable research organizations that provide a supportive environment for research, optimize the use of their resources, and are accountable to their stakeholders.

Clients: directors, managers, and administrators of national research organizations.

Components:

- leadership and guiding values
- accountability and governance
- assessment of organizational performance
- development and management of resources for research
- information systems and communications
- organization and management of operations and support services

Priorities: ISNAR's work in this program area will continue to emphasize the development and management of human resources, seen as an area of major concern given increasing constraints on funding. In addition, ISNAR will give priority to helping national systems exploit advances in computer and information technologies. Considerable attention will also be paid to evaluating organizational performance and improving accountability and governance.

Themes uniting ISNAR's program work

Three major themes, all of strategic importance to the national systems, will unite ISNAR's work during the 1990s: institutional sustainability, assessment of institutional performance, and the institutional implications of increasing research on natural resource management. These themes cut across ISNAR's three program areas in varying degrees and will be the basis on which overall priorities are set among program activities.

Institutional sustainability. How to sustain performance when funding is stagnant or declining and demands on research are growing will be the single greatest challenge facing national systems in the 1990s. This issue will be critical for public-sector research which will find it increasingly difficult to attract and retain high-quality staff.

Assessment of institutional performance. Policymakers and donors are pressing national systems to demonstrate impact. The pressure is likely to intensify through the 1990s as other sectors continue to compete with agricultural research for scarce public funds. National systems will need new approaches, tools, and mechanisms to address this task.

Institutional implications of increasing research on natural resource management. As national systems become more involved in this type of research, they will need guidelines on how to integrate, organize, and manage it. In particular, the coordination of national efforts with regional initiatives will need special attention.

Working with Others

ISNAR's partners and clients

ISNAR works both with and for national agricultural research systems, which are thus its partners as well as its clients. It targets those organizations that make a significant contribution to research, receive substantial public funds, are directly accountable

to national policymakers, and are expected to meet long-term goals serving the public interest. Within national systems, government research organizations will continue to be the priority target group in comprehensive institutional development and in strengthening policy and management components. Their research is directed towards poverty alleviation and resource conservation -- goals identical to those of the CGIAR system to which ISNAR belongs and unlikely to be met through private-sector research.

In view of the growing complexity of national research systems, ISNAR will also provide direct support to the research units of parastatals and universities, as well as to research foundations. And it will increase its support to public-sector entities devoted to forestry, agroforestry, fisheries, the environment, and postharvest activities.

Other organizations conducting research, such as NGOs, development projects, or private firms, are covered by ISNAR's system-wide reviews and planning exercises. ISNAR considers them to be important clients for its information products and it seeks to promote better links between them and public-sector research. However, ISNAR does not provide these organizations with direct support in comprehensive institutional development or in strengthening specific policy and management components.

ISNAR provides direct support for strengthening the organization and management of networks when these are formed by national systems and directly accountable to them. It also advises national systems and organizations on how best to use networks.

On request from national systems, ISNAR provides direct support to regional research organizations that assist or complement their activities, or carry out research on their behalf. It seeks to strengthen activities officially delegated to regional organizations, such as training, or the setting of regional research priorities.

ISNAR's allies

Beyond national systems, ISNAR forges alliances with other organizations to conduct research and training and to deliver products or services to national systems. ISNAR's principal allies

are donors and development agencies, regional organizations, international agricultural research institutes, and specialized institutions. In particular, ISNAR will increase its collaboration with other international agricultural research institutes in the coming years.

Resource Allocations by Region

ISNAR's guidelines for allocating core resources to activities in different regions are as follows:

- 40% to sub-Saharan Africa
- 30% to Asia and the Pacific
- 20% to Latin America and the Caribbean
- 10% to West Asia and North Africa.

For two regions — Latin America and the Caribbean, and West Asia and North Africa — the targets remain the same as during the 1980s. The other figures represent a slight reallocation from Africa to Asia, in line with recommendations for the CGIAR system as a whole.

The reallocation of core resources is consistent with shifting national demand for ISNAR's services. Requests for resource-intensive comprehensive institutional development are declining, while those for assistance with specific components, which ISNAR can provide at lower cost through mechanisms such as networking, are on the rise.

The shift in demand is, and will continue to be, particularly noticeable in sub-Saharan Africa as the region's young and less developed national systems begin to mature. ISNAR should still be able to serve the same number of African countries as in the past but at a lower cost because of the greater potential for spillover of benefits between countries. In addition, Africa is expected to receive more noncore, special-project resources than other regions. Some of this will be used to provide continuing services in comprehensive institutional development wherever possible.

The slight reallocation of ISNAR's core resources also reflects the long-term research needs of Asia. The continent faces a renewed challenge in feeding its still rapidly rising human population after the brief respite gained through the Green Revolution.

Conclusion

This summary has presented ISNAR's planned response to some of the major problems facing agricultural research in developing countries. ISNAR hopes this strategy for the 1990s will encourage donors to support its work, as together we work to surmount these problems in the years ahead.