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1985 Annual Report



June 1986

ISNAR

International Service for National Agricultural Research

The International Service for National Agricultural Research (ISNAR) began operating at its headquarters in The Hague, Netherlands on September 1, 1980. It was established by the Consultative Group on International Agricultural Research (CGIAR), on the basis of recommendations from an international task force, for the purpose of assisting governments of developing countries to strengthen their agricultural research. It is a non-profit autonomous agency, international in character, and non-political in management, staffing and operations.

Of the thirteen centers in the CGIAR network, ISNAR is the only one which focuses primarily on national agricultural research issues. It provides advice to governments, upon request, on organization, planning, manpower development, staff requirements, financial and infrastructure requirements, and related matters, thus complementing the activities of other assistance agencies. Additionally, ISNAR

has an active training and communications program which cooperates with national agricultural research programs in developing countries.

ISNAR also plays an active role in assisting these national programs to establish links with both the international agricultural research centers and donors.

ISNAR is supported by a number of the members of CGIAR, an informal group of approximately 30 donors; it includes countries, development banks, international organizations, and foundations.

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Foreword



Alexander von der Osten (top) became ISNAR's director general following the retirement of William K. Gamble.



The year 1985 represents a milestone in ISNAR's history. At the conclusion of its first five years of operation, ISNAR underwent in-depth program and management reviews commissioned by the Consultative Group on International Agricultural Research. These reviews resulted in strong recommendation that ISNAR continue as a full-fledged member of the CGIAR System. At the same time, Dr. William K. Gamble, founding director general, retired from ISNAR and I assumed the leadership of the institution.

A special word of appreciation is warranted for Bill Gamble. Having worked with Bill during the creation of ISNAR, and later from my position in the Technical Advisory Committee secretariat, I am aware of the real institution-building that took place during the first five years of ISNAR's life. ISNAR has:

- developed a focused understanding of key issues involved in building agricultural research organizations in developing countries;

- developed a conceptual framework for its system-building activities in national agricultural research systems (NARS)
- produced the first signs of impact on the systems it has worked with, in spite of the long gestation periods involved in institution-building efforts.

In late 1985 we began a period of planning for the future which is built on the achievements of the first five years. We are looking ahead to assess future challenges and ISNAR's potential to respond, laying out an operational strategy to guide future program planning, and developing plans to further strengthen ISNAR's capacity.

ISNAR faces high levels of demand for its products and services. There is an increased recognition of the crucial role technology will have to play in solving the world's problems of food insufficiency and poverty.

Demand for agricultural technology continues on an upward trend, and there is increasing recognition of the fact that the national agricultural research systems of developing countries will have to carry the main burden of the process of technology generation and adaptation. A basic premise of ISNAR's existence is that most national systems can enhance their performance in generating and adapting technology by improving their organization and management capacities.

ISNAR is preparing to face these challenges and to respond to needs and demands from client countries. Their research capacities require strengthening. Investments by developing countries and donors in NARS capacities (essentially build-up of staff and infrastructure) place an additional burden on the weakest element — the organization and management of NARS.

ISNAR benefitted from the counsel offered by the external review panels and embarked on a planning exercise. Based on the wealth of experience gained during its first five years ISNAR is now developing a long-term strategy and plan to guide its programs. Simultaneously it began a review of its management structure.

The present planning exercise confirms the continued relevance of ISNAR's three program thrusts. They are directed at:

- the enhancement of management concepts, tools, and methods — ISNAR's research effort;
- the upgrading of organizational and management skills of research managers — ISNAR's training program;
- the enhancement of research systems' capacities — ISNAR's advisory services to NARS.

It is becoming increasingly clear that to perform its functions well, ISNAR needs to focus adequate attention on the generation and adaptation of management concepts, tools, and methods for use by NARS. In performing these functions ISNAR will increasingly rely on its catalytic role; it intends to remain a small institution.

On behalf of the Board of Trustees and staff of ISNAR, I express appreciation to ISNAR's donors, who have generously supported its program. I trust that the report which follows will assure the institution's friends and supporters that under the guidance of its Board ISNAR is moving vigorously in response to the challenges it faces.

Alexander von der Osten
Director General

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ISNAR Donors – 1985

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Belgium (Belgian Administration for Development Cooperation)
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Australia (Government of Australia)
Cameroon (Government of Cameroon) — with USAID
Canada (International Development Research Centre)
Government of the Philippines (under loan from World Bank)
Italy (Government of Italy)
Madagascar (Government of Madagascar, Ministry of Agriculture — with International Development Association loan funds)

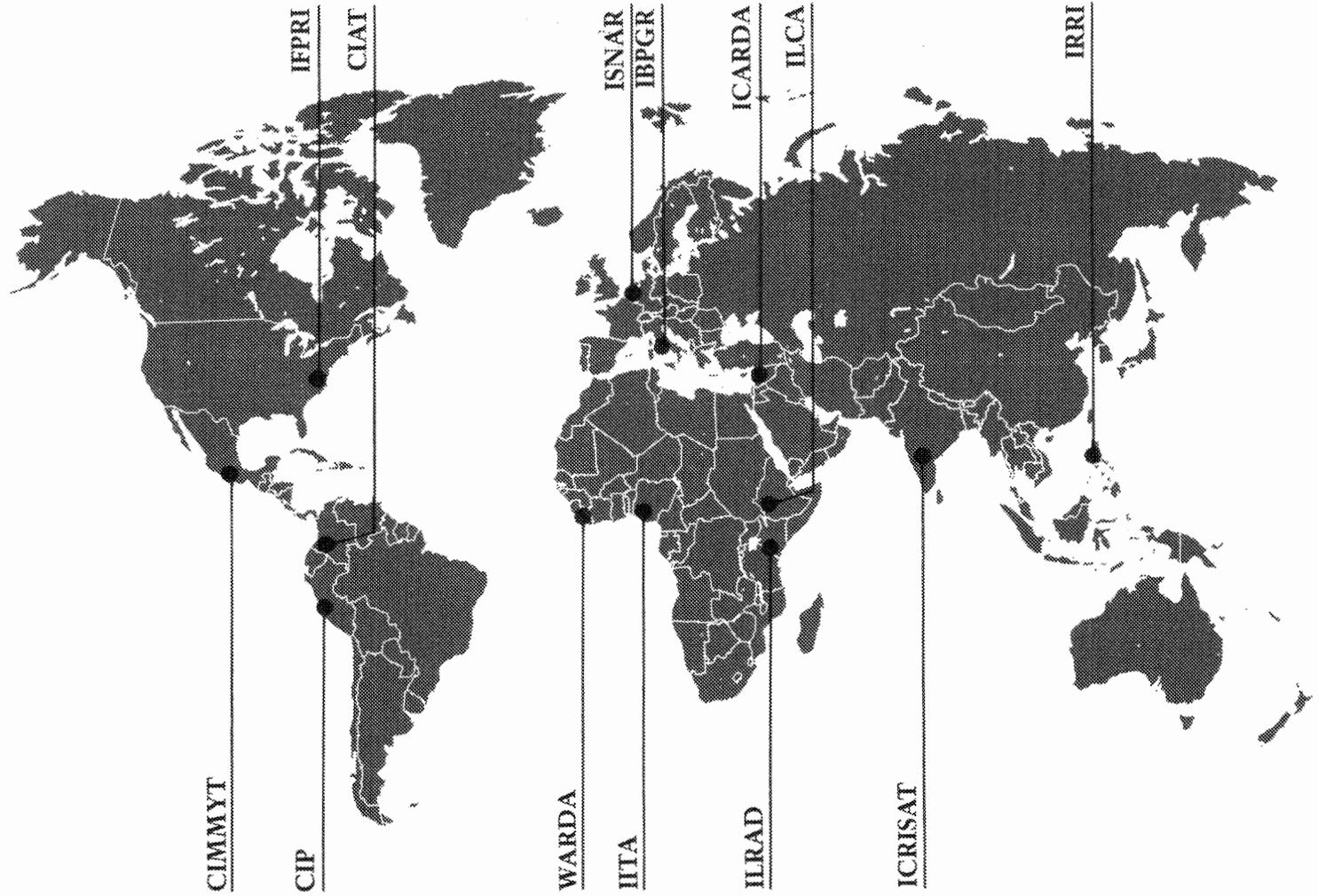
Netherlands (Government of the Netherlands)
Rockefeller Foundation
Rutgers University (under contract with USAID)
Rwanda (Government of Rwanda, Ministry of Agriculture and Livestock) — with International Development Association loan funds
SAFGRAD/Organization of African Unity
Tunisia (Government of Tunisia) — under contract with World Bank
United Kingdom (Overseas Development Administration)
United Nations Development Programme
United States (Agency for International Development)
University of Wisconsin (under contract with USAID)

Some acronyms used in this report

AOAD Arab Organization for Agricultural Development
CDA Cooperation for Development in Africa
CGIAR Consultative Group on International Agricultural Research
CIAT International Center for Tropical Agriculture
CIMMYT International Maize and Wheat Improvement Center
CIP International Potato Center
FAO Food and Agriculture Organization of the United Nations
IARC International Agricultural Research Center (a general term)
IBPGR International Board for Plant Genetic Resources
ICARDA International Center for Agricultural Research in the Dry Areas
ICRISAT International Crops Research Institute for the Semi-Arid Tropics
IDRC International Development Research Centre (Canada)

IFARD International Federation of Agricultural Research Systems for Development
IFPRI International Food Policy Research Institute
IITA International Institute of Tropical Agriculture
ILCA International Livestock Centre for Africa
ILRAD International Laboratory for Research on Animal Diseases
IRRI International Rice Research Institute
ISNAR International Service for National Agricultural Research
NARS National Agricultural Research System (a general term)
PROAGRO Project on Agricultural Research Organization
USAID United States Agency for International Development
WARDA West Africa Rice Development Association

The 13 International Agricultural Research Centers (IARCs)



ISNAR Staff 1985

Administration

Mr. Alexander von der Osten*,
Director General
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Dr. Dennis Wood*, Training Officer

*Joined during 1985

**Completed appointment during 1985

An overview of ISNAR's role and its program thrusts



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Improving national systems' capacity to organize and manage agricultural research

ISNAR's mandate is helping national agricultural research systems (NARS) in developing countries improve their capability to organize and manage agricultural research. Its work is based on three essential premises:

1. Agricultural research is a powerful tool for solving the world's food and rural poverty problems. Research generates technology and produces knowledge that developing countries need for increasing food production, and for development.
2. NARS carry out the major part of world agricultural research. Only they can develop and evaluate technologies under the specific conditions in which they will be used.
3. The performance of most NARS could be improved through strengthening their organizational and management capacities in areas in which ISNAR is active.

ISNAR's role in strengthening NARS

The perceived need for ISNAR evolved out of the success of earlier experiences with international agricultural research. During the 1950s and '60s, international development leaders and donors believed developing countries' agricultural research needs could be met by creating several international agricultural research centers (IARCs) in the tropics.

As the international system developed, and its achievements were observed into the 1970s, it became increasingly apparent that the IARCs could not substitute for strong national research systems. Agricultural development in general, and boosting food production in particular, requires a national knowledge base. This fact pointed to the urgent need to increase the capacity of the NARS.

In 1977, international program donors proposed establishing an international service to strengthen agricultural research in developing countries, international and autonomous in character, and part of the Consultative Group on International Agricultural Research (CGIAR) — an informal association of countries, organizations, and private institutions which supports the system's IARCs. Following a thorough study, CGIAR members agreed that such a service was needed — and ISNAR was created.

ISNAR's three basic thrusts

There are three mutually supporting thrusts to ISNAR's pursuit of its mandate to strengthen NARS by improving their management and organization capacities:

- ISNAR's central thrust is on system building, in direct collaboration with and in support of the national

agricultural research systems. This is ISNAR's service function. Its focus is on improving the individual system's organization and management capacity.

- Enhancing the management capacities and skills of research managers is ISNAR's training function, closely related and complementary to the other two. Its focus is on people; on managers at various levels in a given system.
- Developing management concepts and methodologies is ISNAR's research function. Its focus is on developing concepts, methodologies, and tools for managing research. Its products are both of direct use to NARS and a key input into ISNAR's service function.

An overview of ISNAR's approach

ISNAR's approach to strengthening the NARS integrates knowledge coming from three areas: organization and management science, agricultural research, and the study of developing countries. The integration of knowledge from these areas constitutes an emerging professional specialization of agricultural research management in developing countries.



Principles and concepts guide ISNAR's response and operational approach to its work with NARS.

Several principles and concepts define ISNAR's operational approach to its work with NARS and guide its response to their requests:

- Its services are available to any developing country requesting its collaboration. It maintains activities in all parts of the developing world.
- ISNAR's direct services to developing countries are necessarily limited by its staff size and budget. However, its other resources, such as non-confidential information it has accumulated, and its publications, are available to any interested party.
- ISNAR is one among several sources of assistance in institution building. Therefore, it concentrates on problems of NARS for which it has a comparative advantage and refers clients to other agencies where appropriate.
- ISNAR plays a role as a catalyst. Because of its place in the global system of research development efforts, its modest size, its clearly focused program, and its need for division of labor and complementarity with others, ISNAR seeks opportunities for collaboration with other institutions, like FAO, the IARCs, and universities.
- ISNAR will collaborate only where there is sincere commitment to change on the part of government and the NARS.
- Collaborative activities, programs, and projects are jointly planned so that a sense of partnership is ensured from the beginning.
- In responding to NARS requests, ISNAR is guided by a set of criteria

which includes potential impact, efficiency, and equity considerations. Other things being equal, ISNAR will favor activities in which valuable lessons can be learned and eventually transferred to other NARS. The ultimate beneficiaries of this sharing of experience are the NARS themselves.

Diversity of ISNAR's staff

ISNAR's institutional effectiveness in accomplishing its mandate to strengthen national systems is enhanced by the fact that its staff, from many countries, includes persons with expertise in a wide range of relevant disciplines, such as agricultural research, training methodology, management science, research methods, communications, and the like. In addition to its institutional capacity to work in English, French, Spanish, and Arabic, ISNAR has staff members with knowledge of most European languages and several local languages of the developing world.



Three of ISNAR's French-speaking staff members discuss activities in francophone Africa. ISNAR works in English, French, Arabic and Spanish; and staff members know several other languages.

ISNAR's main thrust is system building

The central thrust of ISNAR's work with NARS is on system building. It concentrates on improving the national system's capability to organize and manage agricultural research. It collaborates with NARS in developing countries to help them identify weaknesses in their organizational structure and management components, and to design solutions.

How ISNAR collaboration begins

ISNAR's cooperation begins after a country requests its help. Such requests may originate in several ways, including:

- National leaders may seek ISNAR's help, knowing of its capability and credibility.
- ISNAR's staff and research leaders of national systems may discuss opportunities for collaboration during conferences and other meetings.
- Donor agencies may suggest to NARS leaders that they should seek ISNAR's assistance.

In determining whether it has a role in working with a country, ISNAR assesses the situation during a preliminary visit. Depending on the nature of the problem and state of knowledge of the system, ISNAR may then review and analyze the entire research system, review parts relevant to the collaboration being considered, or participate in a joint review with nationals or other organizations.

System reviews are conducted by teams whose members are experts on agricultural research management in developing countries. Reviews identify weaknesses and strengths in management functions and components of a research system. If ISNAR and the country decide that ISNAR has a role in working with a system, the review will serve as a basis for further collaboration.

How ISNAR's service works

ISNAR collaborates with NARS in developing countries when it feels it can help them improve their capability to organize and manage their agricultural research. Some specific areas of ISNAR's collaboration in 1985 included:

- planning, programming, budgeting, and setting priorities for research programs;
- manpower planning, development, and training;
- monitoring and evaluating research programs and the system's components;
- improving the system's structure and organization;

- managing information and improving communication;
- establishing linkages with the international scientific and donor communities, including identifying projects and preparing proposals for donor support;
- developing and managing linkages with technology-diffusing systems and agricultural producer clients;
- managing the system's physical and financial resources.

ISNAR's flexibility of response allows it to assist NARS in a number of ways: through direct advisory services, training, collaborative research, or a simple exchange of information.

Levels of collaboration

ISNAR's intensive collaboration usually follows a system review and may lead to detailed work by ISNAR staff on specific organizational components and management processes, designing action programs and strategies to strengthen the system. In more advanced systems, ISNAR may play only a catalytic role, backstopping institution-building activities initiated by the countries themselves.

More extensive collaboration may include maintaining contact through periodic visits, exchanging research management materials and information relevant to the system's needs, providing for NARS leaders' participation in ISNAR training events and seminars, and similar activities. In less advanced systems, ISNAR provides a full range of services, as appropriate, and places strong emphasis on developing management skills.



Training workshop participants sharpen their skills in organizing and managing research.

ISNAR is sharpening the focus of its training

More countries are seeking ISNAR's collaboration in management training, an important tool for increasing their capacity to organize and manage research. In 1985, 290 researchers from 55 national systems learned more about various aspects of organizing and managing agricultural research, in training events in which ISNAR was involved.

There is a logical reason for NARS' increasing interest in management training. Most agricultural research managers come from the ranks of scientists — they did research. When they become managers, they must learn to manage research. In management, learning solely by doing can be time-consuming and difficult. Training for their roles as managers can shorten the learning time, and a relatively large number of people can be trained in a comparatively short time.

ISNAR's training thrust

The thrust of ISNAR and NARS training collaboration is strengthening research managers' organizing and managing skills so they can deal more effectively with the main policy, structural, and management issues they face.

Because research managers deal with specific management processes and system functions, ISNAR and NARS are collaborating in training in specific applied areas such as program budgeting, and monitoring and evaluating research programs, for example, instead of generic management training.

Approach to training

ISNAR initially identified the major research management problems facing NARS leaders through its conferences, system reviews, and other work with systems in different regions of the developing world. Further precision was added by a

survey of specific management training needs in Cameroon, Sudan, and Zimbabwe.

Concurrently, ISNAR was developing a practical approach to meeting the NARS training needs.

- It designed training materials and procedures for the unique agricultural research management environment of developing countries, including case studies, slide presentations, group problem-solving, lectures, and skill-building exercises.
- It developed a cadre of staff and consultants who could deliver the training through workshops, seminars, conferences, and short-term courses.
- Cooperating with African NARS in regional workshops, ISNAR further refined its training materials and approaches. Key agricultural research leaders in a number of countries learned that it is possible, and useful, to train people in management skills. Support for training grew.

- ISNAR has increased its emphasis on training at the national level, where its impact is more dramatic because a larger number of people in the system emerge from the training with a commitment to change, a common vocabulary, and a mutually supporting quest for solutions to problems and issues.

Benefitting from the management workshops are senior and middle-level research system

An ISNAR staff member leads discussion in a regional management training workshop. ISNAR uses case studies, lectures, and other exercises in its training program.



managers such as directors general of NARS, directors of research institutes, research station directors, and national program leaders. ISNAR tailors its approach to the needs and capabilities of each type of course participant. For example, for senior level people who have learned management principles by years of experience, emphasis is on broadly analyzing and diagnosing constraints in the systems.



ISNAR's training staff plans a well-rounded program for a research management workshop.

ISNAR's training capability grows

ISNAR's management training capability is growing.

- Through work with and feedback from workshop participants, and analysis of its accumulated information, ISNAR is increasing its ability to respond to NARS management training needs.
- ISNAR is continually developing new materials and procedures; and testing, refining, and translating them, both into more effective training aids and into different languages.
- Through working with other national, regional, and international institutions, strengthening their research management training capabilities, and drawing on their materials and expertise, ISNAR is multiplying total research management training efforts and, thus, the number of research managers who can benefit from training.

Diverse training activities

In 1985, ISNAR delivered a range of training workshops and seminars, and worked with other institutions in presenting management training. For the first time, participants received management training in French and Spanish, as well as English.

- In March, 32 research and extension participants from eight countries learned about planning and programming research, human relations, internal and external communications, and monitoring and evaluating agricultural research projects in a two-week seminar in French in Mali. ISNAR and the Institut du Sahel delivered the training and sponsored the seminar, which was funded by USAID and ODA under a joint Cooperation for Development in Africa (CDA) project.
- In October, ISNAR and FAO cooperated with the Instituto Colombiano Agropecuario in a week-long national management training workshop in Spanish in Colombia.

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- In September 1985, as an example of ISNAR working with and using the expertise and talent of a regional training institution, it again collaborated with the Mananga Agricultural Management Center (MAMC), Swaziland, in holding a regional workshop on agricultural research management. ISNAR and MAMC delivered an intensive course — 80 sessions in four weeks.
- ISNAR collaborated with the training arm of a national institute, as well as with formal training institutions. ISNAR and Argentinian trainers planned and coordinated a six-day agricultural research management workshop, including presentations on

planning and managing human resources, as part of a major training effort of Argentina's Instituto Nacional Tecnológico Agropecuario (INTA) in November 1985.

- It collaborated with a NARS in developing a national training capacity within the system. In that vein, Cameroon and ISNAR conducted another national management training seminar in 1985, and a national seminar was planned for Kenya in early 1986.

Complete first CDA phase

Phase one of the Cooperation for Development in Africa (CDA) project for management training ended in 1985. The CDA project, funded by USAID and ODA, included assessing management training needs in Africa, preparing training materials appropriate for trainees, presenting regional and national workshops, and supporting African training institutions in developing a local agricultural research management training capacity.

A second phase of the project, CDA II, to be launched in 1986, will include greater emphasis on training at the national level.

ISNAR's research develops knowledge NARS can use

ISNAR's research thrust is on developing management concepts, methodologies, and tools that NARS leaders can adapt for their own use in organizing and managing agricultural research. Through research ISNAR is increasing its knowledge base for working with NARS.

ISNAR has five interrelated objectives for its research program:

1. to increase its knowledge of NARS, how they function, and their key constraints;
2. to develop concepts, approaches, and tools for overcoming constraints in the NARS;
3. to generate basic data and comparative information on NARS;
4. to improve its own analytical ability and working methods;
5. to utilize feedback and draw lessons from its experiences, adapting improved methods and tools developed elsewhere to NARS with which it is collaborating.

Following are reports of some of ISNAR's research activities.

Agricultural Technology Management System in Panama

ISNAR has long recognized the need to develop methodologies for analyzing research systems and identifying opportunities for improvement. In 1985, it built on its earlier work on evaluation methodology through a collaborative project with Rutgers University (USA) to develop and test a new methodology for identifying opportunities for improving agricultural technology management systems. The project was funded by USAID, and depended heavily on the collaboration of Instituto de Investigaciones Agropecuarias de Panama (IDIAP).

The resulting methodology provides a way of analyzing sources of technological change, examines the impact of key government policies on the structure and behavior of the

agricultural sector, focuses on the key constraints operating at the research system level, and finally studies institutional- and commodity-level constraints.

A distinguishing feature of the approach is its movement back and forth between a holistic and a micro-approach. Recognizing that the system may work differently for different crops, the researchers analyzed the size and distribution of benefits coming from research efforts as a function of the quantity and quality of research investments (resources), the efficiency of research programs (management), and the external factors which influenced success or failure of technological events in five key crops.

The result was a methodology which is capable of leading to recommendations for improving the agricultural technology management system at the commodity, individual institution, and overall system levels.

ISNAR studies system structures

The organizational structure of a NARS affects its interaction with its clientele, its capacity to mobilize and develop resources, and its ability to implement certain types of research. Further, organizational structures affect the ways in which research objectives and priorities are set, as well as how human, physical, financial, and information resources are used in the research process.

For analytical purposes, ISNAR has delineated five basic organizational types:

- The autonomous or semi-autonomous institute. An independent board of directors or governors has a high level of control over programs, administrative policy, and resource allocation.
- The agricultural research council (ARC). Several different organizational arrangements and ranges of functions are included under this variant of the

autonomous research structure.

The ARC almost invariably has a wide national scope of work and concentrates solely on research activities.

- The university model. The critical feature of this approach is integration of applied research activities oriented to generating technology within an educational environment.
- Private-sector research organizations. They have highly specific and concentrated mandates with program policy subordinate to that of the parent organization. Two basic variations are: research departments of firms producing technological inputs such as seeds, agrochemicals, and farm machinery; and crop-specific research associated with agricultural-producer associations, similar to autonomous commodity institutes facing comparable conditions.



Staff members plan an 18-month study of problems in doing on-farm research.

- The ministry model. Research is organized in one or more line departments within a ministry's bureaucratic structure.

ISNAR's studies describe the characteristics of the different research organizational structures, and goes on to analyze the way in which they have evolved in different parts of the world. The study provides useful information about how institutions develop over time, and how sociopolitical structures affect organizational choices. At the same time, it lays the groundwork for further study of how critical management functions are carried out in different organizational models.

Study on-farm research

In 1985 ISNAR planned and obtained project funding from the Government of Italy for an 18-month study of the problems and limitations of doing on-farm research, and how to solve them. ISNAR and national system managers need to know more about

how to fit such kinds of research into the organizational structure; the budgetary and managerial implications of an on-farm strategy, and similar information, since it goes beyond the boundaries of conventional commodity research programs.

The study will result in three research products:

- an analytical framework and methodology for evaluating the effectiveness of farming systems research activities in the NARS context;
- case studies of experiences in implementing this type of research carried out by researchers in collaborating countries;
- guidelines for organizing and managing on-farm research and better integrating it into NARS.



ISNAR is building a computerized data base to increase the general knowledge of national agricultural research systems throughout the developing world. Data is gathered by mail survey, information from ISNAR reviews, and other sources.

Data base on NARS

Basic data and comparative information on NARS are needed to make NARS and the whole research community more effective. ISNAR began developing a data base on research systems in 1984. Based in part on data generated from a mail survey of NARS in a cooperative effort including IFARD and AOAD, the ISNAR data base also integrates information coming from system reviews and other credible sources.

The first draft of a report dealing with the growth of research expenditures and scientific personnel since 1970 was produced in December 1985. The project will continue with the verification and analysis of the cross-country information on research structures and programs as of 1983, using data from the ISNAR/IFARD and ISNAR/AOAD surveys.

PROAGRO project completed

Results of the case studies and implications for NARS from the Project on Agricultural Research

ISNAR conducted case studies of human resource issues in developing a methodology for analyzing and improving conditions of service in NARS.

Organization and Performance in Latin America (PROAGRO) were the subject of a workshop at ISNAR headquarters in May 1985.

The PROAGRO project, with funding from IDRC, examined the role of the private sector in generating and introducing technology in Latin America. Case studies were carried out by four national research teams drawn from research institutions in Argentina, Brazil, Ecuador, and Venezuela.

The project produced ten case studies documenting the growing importance of the private sector in developing technology. These were published by ISNAR in a PROAGRO Series during 1985.

Study human resource issues

ISNAR conducted case studies of human resource issues in Sri Lanka, Jordan, and Colombia as part of the development of a methodology for analyzing and improving conditions of service in NARS.

By invitation, ISNAR analyzed the Instituto Nacional Tecnológico Agropecuario of Argentina as a special case of a large sophisticated system. The study included aspects of planning and managing human resources, personnel recruitment, training policies and practices, utilization and productivity issues, personnel evaluation, and salary and grading schemes. The four case studies, to be analyzed and reported in 1986, provided information that NARS leaders can adapt for their own use to improve performance of their human resources.

A separate study used earnings functions as a tool to analyze conditions of service for agricultural researchers both across institutions and for national systems. Through the shape of the earnings profile and the return to further education, the method suggests a way of integrating manpower development considerations with those of establishing conditions of service which attract and motivate scientific personnel.

Other 1985 institutional activities



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1985 was a transition year for ISNAR

Several major events made 1985 an important year in ISNAR's institutional life.

- Its first director general retired after guiding the organization through its first 5 years of development. During that time, it became established in the international community, grew in stature, and tested new ideas and concepts in building its programs.
- It is customary for all 13 of the CGIAR international agricultural research centers to have their programs and management assessed every five years by panels comprised of persons of international stature who perform an External Program Review (EPR) and an External Management Review (EMR). ISNAR's fifth year was 1985, and it was reviewed by the teams.
- The strong support for ISNAR expressed in the two reviews gives it a long-term mandate in service to NARS.
- A new director general assumed responsibility for directing ISNAR's

second phase of service to NARS and institutional development.

- In late 1985, ISNAR began to review its program thrusts, define a long-term institutional strategy, and examine its organizational structure in the light of future needs of NARS.

The review teams' evaluations

The review panels reported their findings to the Technical Advisory Committee (TAC) of the Consultative Group on International Agricultural Research (CGIAR). In transmitting TAC's report of the external reviews to the CGIAR, the TAC chairman commented that ISNAR "has established an enviable reputation among its developing country clients as a small, dynamic, flexible, and independent center providing useful and highly sought after services. TAC is convinced that developing countries have a continuing need for the services ISNAR provides and therefore recommends to the group that ISNAR be recognized as a full-fledged member of the system."



The year 1985 saw a smooth transition as William K. Gamble, ISNAR's first director general, retired and Alexander von der Osten assumed leadership of the service.

(Preceding page) Some ISNAR senior staff members meet to discuss program thrusts, institutional strategy, and organizational structure in light of future needs of NARS.

Prepare a long-term plan

TAC had some suggestions for ISNAR. "TAC encourages the new director general, in concert with the board and staff, to set in motion the processes necessary to prepare a long-term plan and strategy for ISNAR. This institutional strategy should retain the flexible and individually tailored approaches ISNAR uses in addressing the needs of its country clients."

It also suggested, "With respect to program balance, TAC considers that the strengthening of both research and training as recommended by the (External Review) Panel are both appropriate and needed for the improvement and further development of ISNAR's services to NARS."

Commenting on the comparative advantage of ISNAR's relatively small size, TAC "endorses the recommendation of the panel that growth over the next five years to a

level of about 30 senior professional staff is appropriate." It suggested that ISNAR maintain its clear focus on agricultural research issues as the area in which it develops its reputation as a recognized authority.

TAC suggested that more resources be allocated for training and research, including a new initiative for training NARS middle-level research administrators; and that the research program be strengthened as a critical element in strengthening ISNAR's other programs.

The external review teams visited several countries with which ISNAR is collaborating. Members of the panel and an ISNAR staff member discuss ISNAR's work with Kenya officials.





Support for IFARD's international executive secretariat and a meeting of its board at ISNAR headquarters are among ways in which IFARD and ISNAR collaborated in 1985.

ISNAR and IFARD worked together in 1985

ISNAR's collaboration with the International Federation of Agricultural Research Systems for Development (IFARD) provides opportunities for leaders of national programs to communicate with each other, discuss mutual problems, and share ideas; and it promotes linkages between the NARS and the international scientific community.

ISNAR's collaboration with IFARD continued in 1985.

- ISNAR provided support for a meeting of the IFARD board of trustees at ISNAR headquarters.
- It supported IFARD's international executive secretariat at its headquarters.

- ISNAR supported the African chapter of IFARD in preparing a project proposal to strengthen the NARS in that continent.
- It helped support the preparation of two documents entitled, "IFARD in the 21st Century," and "IFARD's Five-Year Program."
- It helped IFARD in seeking financial support for its first international meeting of NARS leaders and the IFARD Second Global Convention to be held in Brasilia, Brazil in 1986.

ISNAR analysis shows new technology increases food production stability

The question of whether the Green Revolution technology has made food production more unstable was the subject of a 1985 seminar conducted by IFPRI, in collaboration with DSE, at Feldafing, in the Federal Republic of Germany.

The question is important for international centers working to increase agricultural productivity in the Third World. Several international institutes took part in examining the issue.

An ISNAR senior research fellow contributed a paper at the seminar, citing evidence that while markedly higher production has increased variability in absolute terms, the relative variability is less. The paper was a contribution to the debate on the impact of the Green Revolution.

Sources of variability

The ISNAR researcher recognized that genetic uniformity of the new high-yielding varieties might create favorable conditions for disease and pest epidemics. The accompanying new technology — higher fertilization and improved agronomic management — provides potential variability in production because it is input- and energy-intensive, adopted at different rates by farmers with varying resources, and affected by government planning.

In spite of the limitation of the new technology, the ISNAR researcher cited evidence that the modernization process by which many developing countries are transforming their traditional agricultures should emerge as a major source of increased food security, and greater stability of agricultural production and productivity.

The old vs. new strategy

He cited as evidence his analysis of cereal production trends in India over 35 years, covering two fairly well-defined time periods — one of 18 years from 1949-50 to 1966-67 which is associated with traditional technology, and the other of 17 years from 1967-68 to 1983-84 associated with modern technology. The two time periods differ as follows:

- In the 1950s, India organized agricultural development programs based essentially on crop varieties not requiring large-scale use of modern farm inputs such as chemical fertilizers.
- In the mid-1960s, India decided to transform its traditional agriculture and made the high-yielding varieties program a major instrument of its new policy.



ISNAR's senior research fellows represent all regions of the developing world and contribute their expertise to its program.

Output and stability increase

The analysis showed that total cereals production during the second (high-yield) period was no more variable than during the first. In fact, the coefficients of variation around the trend line declined by nearly 17 percent in the second period as compared to the first. The analysis as a whole showed that introduction of the new agricultural technology in India is now reaching a stage where increased production is combined with greater production stability in relative terms.

ISNAR senior fellows contribute to its work

Outstanding leaders of NARS from different regions of the developing world in which ISNAR works have been invited to come to its headquarters for special study, and to contribute their expertise to developing ISNAR's program and work.

Senior research fellows are integrated into ISNAR's overall program and are not trainees. They make an important contribution to ISNAR's research, service, and training activities.

Most have returned to their countries to continue their valuable work with their own NARS, serving as sources of contacts and multipliers of ISNAR's impact. Some have joined ISNAR's staff to contribute their special knowledge on a continuing basis.

(Opposite page) ISNAR's publications committee lends guidance to an active program of disseminating information about managing agricultural research.

Publishing makes ISNAR's information available

ISNAR has a small publications section responsible for editing and producing its output, which falls into six categories:

- general publications, including its annual report, newsletter, catalogue of publications, and other

informational materials about ISNAR;

- country activities series, which includes the reports of reviews of national research systems, as well as reviews of specific management functions within a NARS;
- research management series, professional-journal-quality publications through which ISNAR

disseminates its contributions to developing knowledge about agricultural research management;

- working paper series, designed to report results of ISNAR staff research on particular management issues in agricultural research;
- conference papers presented by ISNAR staff at international conferences;
- journal articles and books on subjects of importance to agricultural research management.



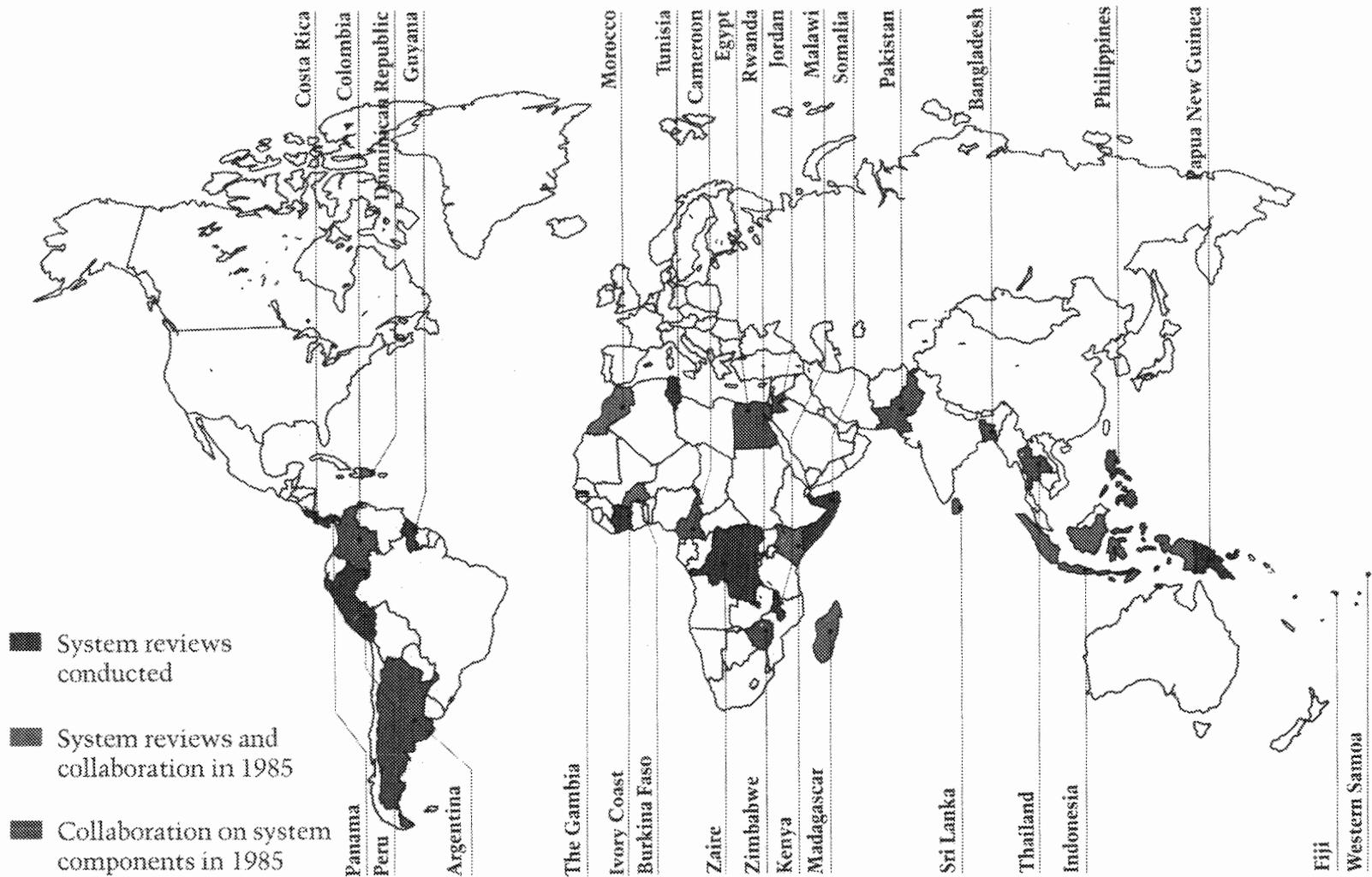
ISNAR produces publications to disseminate practical information, to contribute to developing knowledge about managing agricultural research, and to provide information about its own activities.

Its primary working language is English, but the language of ISNAR's reports, working papers, and conference proceedings dealing with particular countries, and certain other publications, may be English, French, Spanish, or Arabic, whichever is most useful for the principal client.

Some ways ISNAR works with national agricultural research systems

Objectives	Asia and the Pacific								Africa	Latin America and the Caribbean																				
	Bangladesh	Fiji	Indonesia	Pakistan	Papua New Guinea	Philippines	Sri Lanka	Thailand		Western Samoa	Burkina Faso	Cameroon	Ivory Coast	Kenya	Madagascar	Malawi	Morocco	Rwanda	Somalia	The Gambia	Tunisia	Zaire	Zimbabwe	Argentina	Colombia	Costa Rica	Dominican Republic	Guyana	Panama	Peru
To help strengthen national agricultural research capacities in developing countries.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
To improve linkages between international agricultural research centers and national agricultural research institutions.		●	●		●					●		●	●		●		●	●					●				●	●		
To help promote multilateral and bilateral cooperation in fields of agricultural research.			●					●		●		●					●					●								
Activities																														
Identifying needs for planning and carrying out agricultural research.	●	●	●		●			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●
Determining research priorities, and formulating overall research policies and strategies based on those priorities.		●						●	●	●		●	●	●	●	●	●	●		●	●			●			●		●	
Elaborating programs of action, including contacting potential external sources for financing research programs and projects.			●		●		●	●		●		●	●		●	●	●	●		●	●					●	●	●		
Determining the basic facilities required to conduct research.		●	●		●				●			●					●		●						●					
Providing specific professional services to national systems, including project identification and preparation, and outposted ISNAR staff.	●		●		●		●			●		●	●				●	●			●						●			
Advising on human resource planning.	●				●			●		●	●	●					●		●			●		●	●				●	
Developing and improving communication of research results and training opportunities at international and regional institutions.											●						●							●						

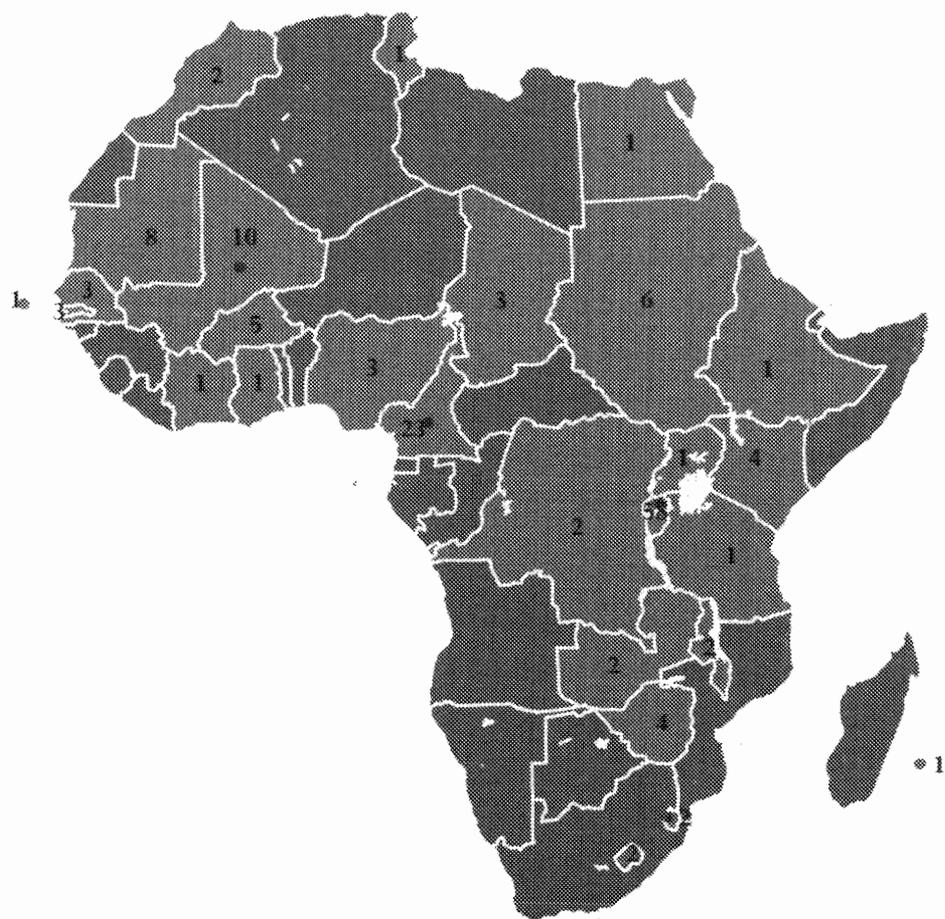
ISNAR's 1985 collaboration with NARS



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Africa

The breadth of ISNAR's involvement in research management training in Africa in 1985 is shown on the map.



The dots on the map of Africa show sites of training workshops during 1985. Also shown are countries and numbers of participants from each NARS represented in the workshops.

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Burkina Faso develops a research structure and sets national priorities

At an interministerial seminar in February 1985, various national and external parties interested in Burkina Faso's agricultural research program evaluated reports of working groups and approved a national program focused on eight priority programs.

This was a significant step in Burkina Faso's well-ordered process of reorganizing and consolidating its NARS and developing a long-term research plan. ISNAR has collaborated with Burkina Faso since taking part in a joint review of research activities, along with FAO and the World Bank, in 1982.

Needed order in research

In 1981, a central organization responsible for planning, programming, coordinating, and implementing agricultural research programs, now called L'Institut National d'Etudes et de Recherches

Agricoles (INERA), was created. It called on ISNAR, FAO, and the World Bank for assistance.

At that time, the Government of Burkina Faso recognized the need for a national research structure and plan, and called for the review as a first step in bringing order to the research activities in the country.

Among other points, the joint review mission recommended:

- creating a planning, programming, and coordinating unit in the research institution;
- consulting with the many donors to coordinate foreign support for a national agricultural research effort;
- appointing a top-level research planning and management specialist to assist in implementing the recommendations.

Appointed an advisor

The latter recommendation was quickly implemented. The World Bank made funds available to finance

the specialist's post for an initial two-year period (since extended another two years). Burkina Faso requested that ISNAR identify an appropriate person to serve in the post as advisor to its director for agricultural research. ISNAR did so and gave the advisor several months of orientation at its headquarters before he began his assignment in Burkina Faso in mid-1983. He has maintained close contact with ISNAR and has facilitated its collaboration with the country.

Meanwhile, Burkina Faso inventoried all research activities; formed working groups combining all available expertise from development projects, national and international institutes, the university, and other sources; and organized a national workshop to define major objectives for the research programs and to outline plans and programs for research. All ministries interested in research were involved.

Burkina Faso evaluated its research needs and is focusing on eight national priority areas.

Focus on eight priorities

The working groups established for each of 12 major research programs drafted proposals which were discussed in the February 1985 interministerial seminar of scientists, development agents, and government officials.

Seminar participants evaluated the reports of the working groups and approved a national program focusing on eight national priority programs:

- research on farming systems, linking research to farmers;
- soil, water, fertility, and plant relationships, and agricultural equipment;
- animal production;
- rainfed cereal crops (including maize, sorghum, millet);
- oilseed and leguminous crops, including groundnuts, soybeans, and cowpeas;
- rice — both irrigated and rainfed;
- vegetable and fruit crops;
- cotton.

Available scientists are assigned to these eight priority programs. A Burkinabe research manager heads each program, and each research station has a national as manager. The realigned research program will eventually cover the five major agroecological environments in its experiment station network, but will focus at first on the high-potential areas of the south and southwest, and the most densely populated central Mossi plateau.

Implementing the plan

Putting the plan into action will involve training manpower; building infrastructure, including a headquarters; adding research stations and rehabilitating some existing stations; and resolving operating constraints of priority programs through the provision of vehicles and fuel for conducting farming systems research.

In accordance with a national plan covering the whole system, the World Bank is lending major financial

support, particularly in providing research facilities and developing the farming systems research capacity, with bilateral donors providing assistance for technical expertise and implementing programs.

Sign an agreement

A significant step in continuing this process of system building was taken in June 1985 when an "Agreement of Collaboration" between ISNAR and the Government of Burkina Faso was signed in Ouagadougou. The agreement adds substance to the relationship, and increases credibility of the reorganization planning and programming proposals. It also simplifies the working relationship between ISNAR and INERA.

INERA is now at a stage where it can start channeling scarce national resources, as well as donor support and technical assistance, to those research programs and projects considered vital for strengthening its research efforts and further development of national agricultural production.

Kenya and ISNAR prepare a plan for developing the national research system

In their most recent collaboration, ISNAR and the Government of Kenya are working together to prepare a national research strategy and plan. It is an intricate and important process, with the ultimate objective being a fully costed 10-year plan for

developing the national agricultural research system. It illustrates how such important long-term planning is done.

Steps in the planning process

- The process began with ISNAR's review mission in late 1984. Kenya's Ministry of Agriculture and Livestock Development (MOALD) requested that the

ISNAR and Kenya's Ministry of Agriculture and Livestock Development collaborated in examining its research programs as a step in preparing a comprehensive national research strategy and plan.



Kenya sought ISNAR's collaboration in working towards a national plan closely related to its current economic and development needs.

review examine its organization, management, and programs of agricultural research; and collaborate in preparing a comprehensive medium-term national research strategy and plan. This in-depth review was a follow-up on an earlier mission in 1981.

- A two-volume national agricultural research strategy and plan was developed and intensively discussed with Kenya senior research scientists and MOALD administrators, with other officials at various levels of the government, and with donors. The plan covers organization and management details, research programs by commodity or factor, research program priorities, mechanisms for coordination, research support requirements, manpower development and training needs, and the requirements to fulfill these needs.

- After the report was accepted by the ministry, it was further discussed with the agricultural aid coordinating group, made up of major donors assisting the country's research system, in August/September 1985.
- As a result of these discussions, a task force comprised mainly of Kenyans, and including ISNAR and World Bank representatives, was constituted to prepare the draft of the project, based on the plan, to be phased in over a period of five to ten years. This task force began its work in November 1985, and expected to complete the national project preparation in early 1986. The project will fully cost all the requirements for fulfilling the plan, present cost tables and financing plans, and cite the expected benefits and macroeconomic impact of the plan and related government policy decisions.

Helps donors see appropriate role

Kenya looks forward to developing and strengthening its NARS on the basis of the national agricultural research strategy and plan, and will be seeking donor cooperation in financing the plan through a coordinated national research project. The existence of a clear national strategy makes it easier for donors to see their appropriate role in developing Kenya's research system.

Kenya's planners and policy makers now feel the country's agricultural research program is more closely related to its current economic and development needs, addresses problems of the emerging class of small farmers, and will help meet population, nutrition, and poverty challenges through improved agricultural productivity, programs, and policies.

An ISNAR advisor works closely with leaders of Madagascar's NARS

At the request of the Government of Madagascar, ISNAR has a staff member posted there as an advisor to the Centre National de Recherche Agronomique Appliquée au Développement Rural (FOFIFA). He works closely with the research system's scientific director, its financial and administrative manager, the heads of scientific departments, and the scientific committee.

Working to strengthen FOFIFA

The ISNAR advisor and the FOFIFA research leaders are collaborating in developing procedures and mechanisms to strengthen research management, including:

- designing and implementing a system for programming and evaluating agricultural research;
- preparing annual and projected research budgets by program;

- preparing scientific reports for assessing research program progress;
- evaluating research results.

ISNAR's backstopping services

The computerization of FOFIFA's program at ISNAR headquarters and assistance to FOFIFA's director general in monitoring changes also help strengthen the NARS. Madagascar and ISNAR collaborated in organizing a program of research with a farming systems perspective in 1985.

The primary thrust of the ISNAR and Madagascar collaboration, funded by a World Bank loan, is institutional development — strengthening the national agricultural research system's capability to program and monitor research.

A program budgeting system enables research managers to establish links among program objectives, and helps follow research progress.

Morocco and ISNAR design computer software as a research management tool

Morocco and ISNAR are collaborating in developing and testing a computerized programming and budgeting system for Morocco's Institut National de la Recherche Agronomique (INRA).

The program budgeting system enables research managers to establish the links among program objectives, which themselves are based on clearly enunciated development goals and research targets. On the resource management side, it assists research managers to anticipate funding requirements, allocate human and physical resources, and track progress in implementation.

The objective is to facilitate research programming and monitoring through a computer software program capable of providing more information than is possible by manually processing data. ISNAR intends to adapt and test it in other NARS.

Reassessing research programs

In 1985, ISNAR and Morocco also continued their collaboration in a process by which INRA research leaders are conducting an extensive review of planning and programming in the country's scientific research institutes. They are reassessing and redesigning major programs to put more order into their research planning.

Rwanda identifies its research training needs

The research management training needs of the Institut des Sciences Agronomiques du Rwanda (ISAR) were identified during two workshops held in that country in January 1985. Following this diagnosis, ISNAR and ISAR prepared a training program, set to begin in 1986, to meet these needs as part of the extended collaboration between the two institutions.

The greatest training needs were found to be in setting research priorities, defining research objectives, and monitoring and evaluating research programs. Other ISAR training needs were identified in several aspects of research methodology, such as research design, methods of conducting farming systems research, and taking account of socio-economic considerations in agricultural research.

Organizational changes

In other 1985 developments, ISAR created a Department of Environmental Studies and Farming Systems Research, separated forestry (including agroforestry) from the crops department and elevated it to departmental rank, and took steps to integrate development project research into ISAR's structural framework. These changes are expected to help Rwanda deal more effectively with erosion, soil degradation, and other environmental damage caused by population growth pushing farming onto fragile lands.

In the context of these new developments, ISNAR cooperated in preparing ISAR's 1986 research program, setting priorities for each commodity effort, paying special attention to formulating a program in environmental studies. Some less-important programs were suspended to increase concentration on priority commodities and subjects.

Longer-range planning

The Ministry of Agriculture, Livestock and Forests (MINAGRI) also asked ISNAR to assist in preparing the country's agricultural research master plan for the years 1986 to 2000. A high-level interministerial steering committee was set up, and ISNAR collaborated with MINAGRI staff on preparatory work.

Tunisia and ISNAR are preparing a long-term national research program

ISNAR and Tunisia's Ministry of Agriculture are preparing a long-term development program for national agricultural research. Developing the program involves two steps:

1. a review and analysis of the system, including a study of conditions of service and recommendations for institutional change;
2. preparation of a long-term agricultural research plan.

ISNAR and three national consultants chosen by the Ministry completed the first phase in 1985. At the request of the Minister, the review team studied the overall structure and functioning of the complex Tunisian system, which includes research undertaken in numerous development projects funded by foreign assistance.

Problem-identification approach

In preparing the long-term research program, ISNAR and teams of Tunisian scientists are using a problem-identification approach centered on principal commodities, supplemented by a thematic and factor orientation which takes account of such factors as irrigation and agricultural mechanization as a means of lifting the constraints which hold back development of key commodities.

The study and project preparation are being conducted under a World Bank loan — Tunisia is preparing an agricultural research development project.



A Cameroon management training seminar participant practices his oral communication skills before an audience.

Cameroon and ISNAR continue collaborating in management training

Oral and written communication were the subjects of a 4-day management training seminar conducted by ISNAR and Cameroon's two agricultural research institutes in June 1985.

Participants learned how to speak before various audiences — of farmers or research scientists — and how to write effectively, from informative letters to informational brochures. As a follow-up to the training, ISNAR is regularly sending articles to participants, reinforcing what they learned during the seminar.

The course was part of a long-range management training plan being carried out with ISNAR's assistance by Cameroon's Ministry of Higher Education and Scientific Research.

Zaire's national task force recommends NARS reorganization plan

Recommendations for reorganizing the national agricultural research system were submitted to Zaire's Executive Council in late April 1985. Included were recommendations for integrating the nation's research efforts.

Worked with study group

The Government of Zaire created a high-level study group to make recommendations for reorganizing and strengthening the research system. At Zaire's request, ISNAR worked with the study group in designing a review and analysis framework, worked with the team at various points in the review, and helped formulate and present the final report.



Members of the ISNAR team collaborating with the Zaire study group prepare documents.

Since national policy issues were involved, it was important that the decisions and recommendations were those of the study group, not those of ISNAR, and the final report was approved as a national document.

Implementing steps began in 1985

At year's end, there was substantial multi-donor interest in ISNAR's backstopping implementation of the changes recommended by the national study team, especially in the reorganization of the Institut National des Etudes et Recherches Agronomiques (INERA). Steps to establish a planning and programming unit and to create a management system for the research program began in 1985 with Belgian technical assistance.

ISNAR participates in Zimbabwe research review

ISNAR was invited to take part in the 1985 annual research review of Zimbabwe's Department of Research and Specialist Sciences (DR & SS) of the Ministry of Agriculture. This was the third year ISNAR has been asked to take part in the research review.

In 1983, Zimbabwe first requested ISNAR's assistance in studying its research management training requirements and preparing a training plan. In 1985, DR & SS officials considered the major recommendations of the training strategy. Training of Zimbabweans is expected to begin in 1986.

ISNAR lends expertise to improve research management in The Gambia

In February 1985, at the request of the Gambian government, ISNAR joined a University of Wisconsin team designing a seven-year USAID project to improve agricultural research and diversification in The Gambia.

ISNAR was requested to lend its expertise to help The Gambia improve its agricultural research management system, especially in setting up a system for determining the research program.

Once the project is approved and launched, ISNAR and The Gambia expect to collaborate through periodic ISNAR visits over several years in developing and monitoring the new procedures; developing specific management tools for program budgeting; reviewing manpower resources; and monitoring and evaluating research.

Ask for ISNAR consultancy on an Egyptian project

ISNAR lends its independent appraisal and help in strengthening management capabilities of national agricultural research systems in different ways. Its consultancy is requested frequently.

A 1985 example: ISNAR was invited by USAID and the Government of Egypt to consult on a national agricultural research project being developed in Egypt. As a part of its contribution, ISNAR suggested ways in which the project could help Egypt build its capability to organize and manage its research program; these ideas were incorporated into the project paper.

Asia

Sri Lanka is preparing a project to strengthen its research system

In 1985 Sri Lankan research leaders and ISNAR personnel collaborated in developing a framework for deciding what should be included in an agricultural research support project for World Bank consideration.

With that framework, they collaborated in several ways. For example, ISNAR helped develop programs requiring the advice of animal husbandry specialists; it helped formulate certain aspects of a farming systems research program, and introduced a program budgeting system. Moreover, findings from an ISNAR study of research manpower and conditions of service conducted in several countries, including Sri Lanka, supplied basic information for part of the project proposal.

Conform to Sri Lanka's wishes

Sri Lankan research leaders and ISNAR collaborated in developing the rationale for the project and drafting operational details for the proposed Council for Agricultural Research Policy. The objective was to make the project conform to Sri Lanka's wishes, supporting areas of research which most need strengthening, but setting realistic limits on the final level of recurring operating expenses. Sri Lanka does not want funding for an expansion it cannot afford to maintain at the end of the loan period.

Conducted a joint review

The above activities are among latest developments in the collaboration which began in 1983 when Sri Lanka proposed that ISNAR join its national Agricultural Research Group (ARG) in reviewing the agricultural research system. The ARG was set up to develop the research component of a National Agriculture, Food and Nutrition Strategy.

The joint ARG/ISNAR team reviewed the system in late 1983. Its report formed the basis for discussions with a World Bank pre-project preparation team in April 1984.

The report highlighted several issues requiring policy decisions which needed to be considered in developing the project to strengthen the research system. A principal recommendation was to establish a Council for Agricultural Research Policy to strengthen coordination within Sri Lanka's complex agricultural research system, which includes many research institutions, seven ministries, and the President's office.

Resources for research

The recommended council would advise the ministries on allocating research funds. It would also have funds available for supporting inter-ministerial research projects and postgraduate training based on a national agricultural research manpower plan.

The main lines of the joint ARG/ISNAR proposals for the share of development resources to be allocated to agricultural research were incorporated in the National Agriculture, Food and Nutrition Strategy papers. The strategy papers were ratified by the secretaries of the seven concerned ministries in February 1985, and the Planning Division was given approval to proceed with project preparation with collaboration from ARG. ISNAR was involved in the discussion of most issues.

A lengthy process

The process of reorganization, involving the complex multi-ministry system, is a lengthy one. At the end of 1985 it appeared that if the World Bank appraisal were done promptly, the earliest date at which the project could become effective would be around March 1987.

Once the project is approved and major decisions are made, Sri Lanka will need to do much work in such activities as setting national priorities, establishing efficient working procedures for the council, setting up a scientific manpower planning system, improving program-formulating committees in research stations, and developing a program-budgeting system. But it will be using its carefully crafted plan in strengthening its agricultural research system to serve the country's needs.

AARD and ISNAR work together in selecting specialists for the evaluation teams, and in conducting the program evaluations themselves.

Indonesia is evaluating its research programs

Indonesian agricultural research service leaders wanted to evaluate the achievements resulting from the country's large research investments during the past five years or more. To review all key programs, a three-year research evaluation program was begun in 1984 and continued in 1985.

Will review all programs

A total of about 10 reviews are planned, which will evaluate all of the Agency for Agricultural Research and Development (AARD) research programs. By the end of 1985, half of these reviews had been completed. In the process, ISNAR and AARD have been collaborating in strengthening AARD's planning and evaluation unit.

As one step in that collaboration, the head of the planning and evaluation unit spent a week at ISNAR in 1984, working with staff in developing the methodology and establishing guidelines for evaluating the research programs. AARD and ISNAR are also working together in selecting members of the evaluation teams, which include specialists from other national and international institutes, and in conducting the evaluation program studies themselves.

Another aspect of their collaboration in 1985: ISNAR and AARD jointly developed a proposal to continue strengthening the research system with external funding from USAID. As in earlier proposals, ISNAR's role was one of working with the AARD staff on how to formulate such proposals, not one of doing the job as an independent contractor.

Management challenges

Indonesia's experiment in accelerating the development of its research system provides a striking example of what can be accomplished in a relatively short time when firm policy decisions are taken. It has created a modern research system which can effectively use World Bank and USAID financial assistance, and the collaboration of ISNAR and other international organizations. Its challenge now is to use the system even more efficiently and effectively in supporting the country's agriculture.

Rapid changes also create challenges in managing an expanded system. Responding to these challenges, Indonesia has embarked on a major research management development program, including management skills training for its senior staff.

Long working relationship

Indonesia and ISNAR have a long working relationship, including cooperation in developing project proposals, in training, in evaluation, and in other activities to strengthen AARD for the country's benefit. ISNAR's involvement with AARD is its largest in that region of the world. It began in 1981 when ISNAR responded to a request from the agency's director general to review its progress to that time. Future plans call for collaboration in management development.

Thailand study analyzes human resource issues

In 1985, Thailand and ISNAR produced an analysis of the Department of Agriculture's (DOA) likely staffing and career situation in 1990 — including the number of people employed, the distribution of civil service grades, and the changing shape of the personnel pyramid — to help in manpower and career planning.

Personnel pyramid is bulging

The personnel pyramid is changing shape in Thailand, as well as in some other developing countries. A personnel pyramid normally has a wide base of new, young people entering the service, narrows as some people are promoted and others find opportunities outside government service, and forms a narrow peak at the top as people attain high rank and later retire.

The Thai personnel pyramid is bulging because more young and middle-aged people are moving up the pyramid together, and retirements are slowing.

The pyramid is bulging because a large number of young and middle-aged people are moving up the pyramid together. Financial constraints are keeping large numbers of new people from entering at the bottom, and people are not retiring as fast as formerly was the case.

The study was part of ISNAR's collaboration with a Thai inter-agency commission which included representatives of the Civil Service Commission, DOA, and other government agencies.

Manpower planning issues

From a longer-term perspective, the commission's interest covers broader issues of manpower planning and personnel management in DOA, with findings and actions being potentially applicable to other Thai government ministries and departments.

The commission is also examining a pressing question facing the Thai National Agricultural Research Project, the main objective of which is

to strengthen a system of research centers located throughout the country. That question is whether there will be enough people willing to staff the centers located away from the nation's capital. The Thai government asked ISNAR to assist it in looking at conditions of service issues to find ways of encouraging researchers to accept posts in the centers out in the country.

Professional advancement

Results of a detailed analysis of non-salary benefits, considered most important by agricultural research personnel stationed outside of Bangkok, ran counter to the common perception that schools, transportation, and medical facilities would top the list. Topping the list of concerns of research staff posted in the provinces was lack of opportunities for professional advancement — such as availability of training and improved prospects for promotion.

Bangladesh and ISNAR are setting up a data base on research manpower

ISNAR is working with the Bangladesh Agricultural Research Council (BARC) in setting up a computerized data base on human resources. By the end of 1985, manpower data had been collected from the Bangladesh Rice Research Institute and is being collected in two other institutes.

ISNAR and BARC are training people to collect data and enter it into a personal computer for use in manpower planning, management of training programs, and general personnel administration.

Managing human resources

Also in 1985, Bangladesh began preparing for an international workshop on managing human resources in agricultural research to be held in 1986, following up on a successful research program evaluation workshop held in 1984.

ISNAR works with a national task force in the Philippines

The research system of the Philippines has been intensively studied by various bodies during the past 15 years. When ISNAR received a request for a system review, it discussed its collaboration with the Philippine Ministry of Agriculture and Food (MAF). ISNAR wished to help strengthen research in the MAF within the wider framework of the national agricultural research system, which includes universities and international centers.

ISNAR's advice solicited

ISNAR and MAF worked out an approach in which the system review was carried out by a team of Filipino scientists and resource persons, chaired by a senior agricultural research leader from another Southeast Asian country. In October 1985, a small team from ISNAR consulted with this team in Manila as it was assessing its findings and

developing recommendations. ISNAR was then asked to comment on the report.

ISNAR noted that the reorganized national agricultural research system, under the leadership of the Philippine Council for Agricultural and Resources Research and Development, had already made a major contribution by focusing research on development. Under the reorganized system, much of the responsibility for research was given to the universities and colleges of agriculture, which have large resources of highly trained scientific manpower, thus reducing the role of the Ministry, which has an extensive network of experiment stations.

Work to meet country's needs

The ISNAR team recommended a longer-term approach, strengthening both the colleges of agriculture and the MAF research stations to work in a complementary fashion to meet the technological needs of the country's changing agriculture.

Fiji's five-year plan identifies priority research areas, and main programs and projects.

Fiji and ISNAR complete a research plan in 1985

ISNAR and a task force of senior Fijian officials and scientists completed a medium-term research plan for the country in 1985.

The plan identifies priority research areas, and main programs and projects, for the five-year period 1985-89. It also considers manpower and other resources required, proposes a more compact station network, and suggests ways of improving management and budget allocation efficiency.

Valuable interaction

Cooperation between the ISNAR staff and Fiji research scientists in developing the plan was beneficial to both groups.

- The process helped higher councils of the Government of Fiji recognize the importance of agricultural research and the support it requires. Scientists became more conscious of the need for improving management practices — particularly in planning and programming — to use available resources more effectively. Most important, they began to associate research planning with the government's development goals at the policy-making level.
- ISNAR's staff gained valuable experience and insight into the problems of a research service in a relatively small country, which it can use in studying other small countries.

Latin America

Argentina builds support for and develops a plan for management training

ISNAR collaborated with Argentina in conducting a major human resources review — including management training needs — of the country's Instituto Nacional Tecnológico Agropecuario (INTA) in 1985.

In November, the two institutions jointly planned and conducted a six-day workshop on management issues for 50 persons drawn from among INTA's leadership, directors of research stations, and extension leaders. Two observers from neighboring Uruguay also attended.

Planned around management issues

The workshop was planned around management issues. From its survey of training needs, INTA knew what sort of management training was needed. There was full commitment of the people who wanted the training and the full support of INTA's leadership. Workshop objectives were to develop a management training program for the institute, to develop a problem-solving approach, and to gain the commitment of staff.

The six-day workshop was organized around three topics. Two days dealt with the nature of agricultural research management; two days were devoted to different methodologies in training on strategic planning and programming; and two days were spent designing a management training plan for INTA.

Local trainers heavily involved

Because of the availability of local trainers, ISNAR's investment was relatively light. Two ISNAR staff

members participated in the training, contributed to the curriculum design, and supplied materials, while local trainers took a major role in the actual teaching.

In November, INTA and ISNAR jointly held a six-day workshop on management issues for 50 of INTA's leaders. Objectives were to develop a training program for the institute, a problem-solving approach, and gain the commitment of the institute staff.



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Latin America has many public-sector training institutions with permanent staff members who are not prone to move to the private sector; and the

research institutions have both the commitment and resources to take advantage of management training. ISNAR's challenge in Latin America,

therefore, is developing specialized materials for the training — and the demand is great.

Major human resources mission

Collaboration in the human resources study required a large input of ISNAR's staff time. INTA employs some 1,500 persons, and information had to be gathered from various departments to be used in analyzing human resources planning and management in the system. Information gathered included postgraduate training, amount of training overseas, and details of remuneration. The study focused on conditions of service factors such as how staff is graded and pay levels determined, and whether advancement is based on performance or seniority.

The human resource development activities are part of ISNAR's larger collaboration in INTA's plan to decentralize and reorganize its activities and structure.



Dominican Republic case illustrates how the organizational structure can affect the essential performance of a NARS.

A new law changed the Dominican Republic's NARS structure in 1985

Dominican Republic national leaders, seeking the full benefits of a strong national agricultural research system, agreed with the ISNAR review team's 1983 assessment that a new autonomous research institute was needed.

The mission report identified the system's existing organizational structure as the major limitation to effective operation of the research process. The recommendation was to put research into a new decentralized, autonomous institute — the Instituto Dominicano de Investigación Agropecuaria (IDIA).

Implementing the strategy

During 1983 and 1984, ISNAR staff and consultants discussed with the research system authorities and other affected groups, particularly the universities and extension service, various aspects of the proposals for implementing the review team's recommendations.

In June 1984, the new Secretary of Agriculture created a working group to oversee implementation of the mission's recommendations. ISNAR hired a full-time consultant to assist the working group in: gaining legislative support for the necessary legal instruments; providing general advice on developing the new system's organizational structure and operational mechanisms; and supporting the search for outside donors who would supplement limited national resources.

Congress created IDIA in 1985

The process came to fruition in 1985 when the Congress of the Dominican Republic passed the law creating IDIA. ISNAR and Dominican officials further clarified different aspects of the IDIA project and worked to develop prospective donors' interest in supporting agricultural research activity in the country. USAID agreed to assist in setting up the institute and to provide support through the early stages of IDIA's establishment.

The Dominican Republic case illustrates how the organizational structure can affect performance of a system's essential processes. It also illustrates that changing the organizational structure is likely to be a major undertaking which can benefit from ensured backstopping by an organization like ISNAR.

Peru assesses its NARS and methods of transferring technology

The Peruvian government requested ISNAR's help in assessing its national institute — Instituto Nacional de Investigación y Promoción Agraria (INIPA) — and in evaluating an emerging joint research and extension service incorporated in this decentralized institute, created in 1981.

At Peru's invitation, ISNAR concentrated its attention on organizational aspects of INIPA, its personnel, human resources development, and planning and programming in the institute. The report was accepted by the Government of Peru in 1985.

Further areas of collaboration

ISNAR and INIPA are considering possible areas of further collaboration to strengthen the system's ability to organize and manage research. Two main areas are under discussion:

1. developing the system's human resources;
2. alternative mechanisms for transferring technology and knowledge to farmers.

ISNAR is collaborating with ICA through short consultancy visits.

Colombia is improving its planning and programming

In June 1985, ISNAR collaborated with the Instituto Colombiano Agropecuario (ICA) in a study of its research planning and programming procedures. That work is a cooperative effort, involving short consultancy visits dealing with three ICA thrusts:

1. Improving planning and programming — for the allocation of research resources down to the regional research station and researcher levels. ISNAR and Colombia are designing the system and training support staff, and will evaluate and adjust it after it has been tried.
2. Developing human resources. The primary objective is a long-term manpower development policy and the means of implementing it. Colombia was one of the countries participating in an ISNAR study of

conditions of service policies for scientists, and the study focused on ICA.

3. Reviewing ICA's reorganization process. This activity is a follow-up of 1983 and 1984 ISNAR consultancies, working with ICA leaders in restructuring the system.

In other joint activities, ISNAR and ICA cooperated in holding a one-week workshop in Colombia on agricultural research management, in October 1985.

Regional associations

ISNAR reviews a regional Caribbean institute

In June 1985, at the institute's request, ISNAR reviewed and evaluated the Caribbean Agricultural Research and Development Institute (CARDI) program in the English-speaking Caribbean countries, following an earlier exploratory mission in March. The mission's report was submitted to the CARDI Board of Governors in August and was accepted by the board in December.

CARDI is an autonomous institute established by governments of the region — Antigua, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Christopher-Nevis-Anguilla, St. Lucia, St. Vincent, and Trinidad and Tobago.

Set commodity research priorities

As a follow-up, ISNAR has agreed to prepare a project for funding to set commodity research priorities in the Caribbean context. CARDI will lend its institutional support, as part of an overall assessment of its activities in the Caribbean region.

In December 1985, ISNAR took part in a seminar organized by CARDI to discuss strengthening regional agricultural research in the Caribbean under conditions of severe resource limitations. The ISNAR mission report made a significant contribution to discussions of the issues involved. Seminar participants from several countries examined regional agricultural research and development experiences, also in the context of CARDI's agricultural research role in the Caribbean.

ISNAR and AOAD develop a project proposal for NARS in Arab countries

Increasing agricultural production has high development priority in the Arab countries of West Asia and North Africa. It requires making new policy commitments to such development, and developing and/or adapting new technologies.

Important to the process is strengthening agricultural research systems, requiring more top-quality research managers in the region, and a positive approach to agricultural research issues.

These facts led ISNAR and the Arab Organization for Agricultural Development (AOAD), the specialized agency of the League of Arab States which promotes agricultural growth, to sign a

collaboration agreement in 1984. In 1985, they jointly developed a project proposal, "Strengthening Agricultural Research Management in the Arab Countries" (SARMAC), for which funding is being sought.

Data base cooperation

Through the ISNAR/AOAD survey of national agricultural research systems, AOAD countries are helping build the ISNAR data base, from which they will gain information on Arab-world research systems as well as those of other developing countries.

AARINENA organized to promote Near East and North Africa cooperation

One purpose of ISNAR's conferences is bringing government leaders, research managers, and representatives of regional and international organizations together to promote regional cooperation in helping countries strengthen their research systems.

In 1985 ISNAR, with FAO and ICARDA, co-sponsored the first conference of the Association of Agricultural Research Institutions in the Near East and North Africa (AARINENA) in Damascus, Syria. AARINENA includes the 21 Arab League countries, plus Afghanistan, Cyprus, Iran, Pakistan, and Turkey.

This organization, formed with the objective of promoting agricultural research in the region, grew out of a technical consultation on agricultural research cooperation held in Cyprus in 1983, under sponsorship of FAO, ICARDA, and ISNAR.

ISNAR's director general delivered the keynote address, and a senior research officer presented a paper on managing agricultural research systems. The regional group developed a mandate to promote agricultural research, elected officers, and established a temporary secretariat in FAO's Near East Office in Rome.

1985 Staff participation, publications, and consultants



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1985 Publications

A Training Plan for the Department of Research and Specialist Services, Zimbabwe, 1985 to 1988. ISNAR and Ministry of Agriculture. Harare, Zimbabwe. February 1985.

Working Paper No. 1. Agricultural Research in the Public Sector of Latin America: Problems and Perspectives. March 1985.

The National Institute of Agricultural Research in Morocco. Résumé in four languages: English, Arabic, French, Spanish. March 1985.

PROAGRO Paper No. 1. Agricultural Research in the Private Sector: Issues on Analytical Perspectives. March 1985.

Working Paper No. 2. Using Evaluations for Planning and Management: An Introduction. April 1985.

Potentials for Strengthening Management in National Agricultural Research. ISNAR and Ministry of Agriculture of Jordan. April 1985.

Working to Strengthen the National Agricultural Research Systems of Developing Nations. 1980. Revised 1982.

ISNAR Reprint Series No. 2. India's Coordinated Crop Improvement Projects: Organisation and Impact. April 1985.

Serving National Agricultural Research Systems: Lessons from Country Experiences 1980-84. April 1985.

PROAGRO Paper No. 2. Los Consorcios Rurales de Experimentación Agrícola: Evolución e Impacto. May 1985.

Agricultural Research Policy and Organization in Small Countries. ISNAR and IAC, Wageningen, Netherlands. May 1985.

Agricultural Research in the Dominican Republic. May 1985.

Agricultural Research Plan - Fiji. June 1985.

Les Besoins de Formation Continue en Gestion et en Méthodologies de la Recherche à l'Institut des Sciences Agronomiques du Rwanda. June 1985.

PROAGRO Paper No. 3. Las Funciones del Sector Público en el Mejoramiento Genético de los Principales Cultivos de la Región Pampeana en Argentine. July 1985.

PROAGRO Paper No. 4. Articulaciones Sociales y Cambios Técnicos en el Agro Ecuatoriano. July 1985.

Requirements for Strengthening Postgraduate Research Training in Agriculture and Veterinary Medicine: A Contribution to Kenya's Manpower Development for Agricultural Research. July 1985.

Women and Agricultural Technology: Relevance for Research. Volume 1 - Analyses and Conclusions Volume 2 - Experiences in International and National Research. July 1985.

Working Paper No. 3. Analyzing Conditions of Service for Agricultural Researchers: An Experiment Using Earnings Functions. July 1985.

PROAGRO Paper No. 5. Los Hitos Tecnológicos en la Agricultura Pampeana. August 1985.

Document du Travail No. 2. Introduction à l'Utilisation des Evaluations Pour la Planification et la Gestion de la Recherche Agricole. August 1985.

Regional Research Networks: The Experience of PRECODEPA. CIP, ISNAR. November 1985.

1985 Consultants to ISNAR

Mr. Kenneth R. M. Anthony
Oxted, Surrey, England
Assisted in the effective integration
of the IARC programs in the SADCC
region and acted as a member of the
ISNAR mission to CARDI in the
Caribbean.

Mr. T. F. Carroll
Washington, D.C., U.S.A.
Member of the ISNAR mission
to CARDI in the Caribbean.

Mr. Jens Christensen
Morkov, Denmark
Extension expert in the INIPA
review (Peru).

Mr. Alfred P. Conesa
Montpellier, France
Team member on the ISNAR mission
to Colombia.

Ms. Susan Culligan
New York, N.Y., U.S.A.
Prepared word-processing
management system for ISNAR.

Mr. Roger Discombe
Sussex, United Kingdom
Assisted on the SPSS software
computer package.

Mrs. Thelma Egerton
Paris, France
Lecturer in MESRES/ISNAR seminar
in Cameroon.

Dr. William P. Gormbley
New York, N.Y., U.S.A.
Updating of administrative
procedures and also preparations for
External Management Review.

Mr. Sam T. Harmon
Nairobi, Kenya
Participated in sessions for the
Mananga workshop.

Dr. Fred Haworth
Kingsbridge, United Kingdom
Coordination of External Program
Review, Plan & Program Paper, and
CARDI preparatory mission.

Ms. Hazel Kellar
Phoenix, Arizona, U.S.A.
Set up ISNAR central filling system.

Mr. Gerar J. Kerkhoven
Renkum, Netherlands
Participated in an exploratory
mission, Rwandan agricultural sector
(ISAR).

Dr. K. Robert Kern
Ames, Iowa, U.S.A.
Follow-up on reporting and
documentation of research programs
in Fiji.

Dr. Francois Labouesse
Mirviel lez Montpellier, France
Member of the team on the ISNAR
mission to Tunisia.

Ms. Ada Florentino de Llinás
Santo Domingo, Dominican Republic
Acted as advisor to Executive
Secretary of National Agricultural
Council in support of its
responsibility for implementing
the "Instituto Dominicano de
Investigaciones Agrarias (IDIA)".

Dr. Eugenio Martínez
Gainesville, Florida, U.S.A.
Participated in the assessment
of INIPA in Peru.

Mr. William T. Mashler
Larchmont, N. Y., U.S.A.
Finalized the SADCC proposal for
ISNAR liaison scientist to be based
in Botswana. Advise, consult with
TAC, CGIAR, donors, and others on
program and support.

Mr. W. A. C. Mathieson
London, United Kingdom
Reviewed and indexed minutes of all
Center Directors' meetings.

Dr. Edgardo Moscardi
Buenos Aires, Argentina
Participated in the follow-up work in
the Dominican Republic.

Dr. Barry Nestel
Redhill, Surrey, United Kingdom
Carried out work on palawija and
fisheries reports for AARD, Indonesia.

Nortec Communications
Minneapolis, Minnesota, U.S.A.
Preparation of documentation and
audiovisuals on presentation of
"ISNAR, the Early Years".

Dr. Víctor Palma
Lima, Peru
Documented a case study on the
framework of the research, extension,
and education model as used in Peru.

Dr. Philip Pardey
St. Paul, Minnesota, U.S.A.
Worked on the determinants of
investment in agricultural research
and analysis of scientific linkages
using citation data.

Dr. William J. A. Payne
London, United Kingdom
Assisted in the preparation of research
project in Sri Lanka and participated
in the ISNAR mission to Kenya.

Dr. Martin Piñeiro
Buenos Aires, Argentina
Participated in workshop organized by
CIAAB in Montevideo, Uruguay.

Mr. S. W. Sadikin
Bogor, Indonesia
Acted as Team chairman/research
manager on Philippines project.

Mr. Wayne E. Swegle
Des Moines, Iowa, U.S.A.
Worked with Publications Officer
on the preparation of the 1984
Annual Report.

Dr. Jean Pierre Trouchaud
Montpellier, France
Team member on the ISNAR review
mission to Morocco.

Mr. Guy Vallaeys
Cesson, France
Participated in follow-up of Zaire
mission.

Mr. Brian Webster
Cambridgeshire, United Kingdom
Team member on the ISNAR
exploratory mission to CARDI, in
the Caribbean.

1985 Participation by Staff

January 12

General meeting and conference presentation, Nigerian Academy of Science. Dr. T. Ajibola Taylor.

January 21-25

Seminar on strengthening national agricultural research systems: an approach to policies and priorities. ISNAR/CIMMYT. The Hague, Netherlands. Participation by: M. Dagg, H. Hobbs, H. Elliott, and Dr. G. Hariri.

January 24-30

Workshops at Rubona and Ruhengeri on In-service Training Needs in Research Management and Agricultural Research Methodology at the Institute for Agricultural Sciences (ISAR), Rwanda. Dr. R. B. Contant and Ms. M. de Lattre.

February 8-15

IFPRI Board of Trustees, Dhaka, Bangladesh. Dr. T. Ajibola Taylor.

February 12-13

Meeting of Cooperation for Development in Africa (CDA) Technical Advisory Committee on Agricultural Research, Paris. Dr. R. B. Contant.

February 16-19

Technical consultation of Arab AGRIS and CARIS centers. FAO/AOAD. Khartoum, Sudan. Participation, Dr. G. Hariri.

February 16-23

IBSRAM workshop. ICRISAT. Patancheru, India. Dr. Carlos Valverde, representing ISNAR.

February 26

4th International Course for Development-oriented Research in Agriculture (ICRA). Wageningen, Netherlands. Dr. Carlos Valverde, lecturer.

March 3-7

Regional Cooperative Project IICA/BID/PROCISUR. Board of Directors meeting. Montevideo, Uruguay. Dr. Carlos Valverde, representing ISNAR. Presentation and evaluation of proposal.

March 4-15

ISNAR-INSAH Regional Seminar on Management of Agricultural Research Projects. Bamako, Mali. ISNAR team: Mr. J-G. Doumbè-Mouloungou, Ms. M. de Lattre, Dr. R. B. Contant, and Dr. G. Rouanet.

March 6-8

Training in the CGIAR System. Meeting organized by the Technical Advisory Committee (TAC). Rome, Italy. Participation by Dr. Byron Mook.

March 11-22

Mr. Huntington Hobbs participated as consultant in agribusiness and private sector research in mission designing Research Strategy and Plan for Kenya.

March 17-20

Rainfed Agricultural Information Network (RAIN) Workshop. ICARDA/USAID. Amman, Jordan. Presentation, Dr. B. Mook; participation, Dr. G. Hariri.

March 21-22

Official visit to the Swedish Agency for Research Cooperation with Developing Countries (SAREC), Stockholm, Sweden. ISNAR delegation: Dr. W. K. Gamble, Dr. H. K. Jain, and Dr. R. B. Contant.

March 25-29

Bellagio CGIAR Inter-Center Meeting on Women and Agricultural Technology. The Rockefeller Foundation. Participants, Dr. William K. Gamble and Dr. Josette Murphy. Dr. Murphy presented a paper, "User-Oriented Research: A Synthesis of the IARCs' Experience".

March 31- April 5

The Arab conference for agricultural research on basic food crops. AFESD/ICARDA. Aleppo, Syria. Participation by Dr. G. Hariri.

April 9-13

Participation in review of "International Course on Development Oriented Research". International Agriculture Center, Wageningen, Holland. Dr. H. K. Jain.

April 15-25

Agricultural Research Policy Seminar. University of Minnesota/ISNAR. Dr. William K. Gamble, Dr. Matthew Dagg, Dr. Josette Murphy, Dr. Eduardo Trigo, and Mr. Huntington Hobbs attended the seminar. Dr. William K. Gamble presented a paper, "Considerations for the Development of National Agricultural Research Capacities in Support of Agricultural Development". Dr. E. Trigo presented a paper, "Agricultural Research Organization in the Developing World: Diversity and Evolution". Dr. J. Murphy presented a paper, as well; and Mr. Huntington Hobbs led case discussions on role of private and public sectors in agricultural research. University of Minnesota, Minneapolis, U.S.A.

April 19

Swarthmore College, Swarthmore, Pennsylvania, USA. Mr. Huntington Hobbs was guest lecturer to Food Policy Program. Lecture on "An Historical Perspective to Agricultural Research".

April 21-25

CARDI's Research Advisory Committee Meeting. Port-of-Spain, Trinidad & Tobago. Dr. Carlos Valverde, representing ISNAR.

April 23

International Course on Food Science and Nutrition. Organized by the Netherlands Universities Foundation for International Cooperation (NUFFIC). Wageningen, The Netherlands. Invited lecture on India's Changing Agriculture: Some Policy Implications, by Dr. H. K. Jain and presentation by Dr. Byron Mook.

April 26-30

IBSRAM workshop. Manaus and Brasilia, Brazil. Hosted by EMBRAPA. Dr. Carlos Valverde, representing ISNAR.

May 13-17

PROAGRO Workshop. ISNAR. The Hague, The Netherlands. Participants: H. Elliott, A. Fletcher, G. Hariri, H. Hobbs, H. K. Jain, B. Johnson, S. Kang, J. Murphy, E. Trigo, C. Valverde, F. Williams.

May 20-June 18

Trip to Burkina Faso, Mali, Cameroon, Kenya. Review and preparation of indicative master plan for the semi-arid food grain research and development (SAFGRAD) project. Dr. W. A. Stoop.

May 27-June 2

Zimbabwe Annual Review of Research and Extension Programs, Nyanga, Zimbabwe. Dr. T. Ajibola Taylor.

May 27-31

Conference of the Association of U. S. University Directors of International Agricultural Programs (AUSUDIAP). University of Georgia, U.S.A.

Dr. Carlos Valverde, panel paper presentation.

June 2-5

Task force meeting for forthcoming First General Conference of the Association of Agricultural Research Institutions in the Near East and North Africa. FAO/ICARDA/ISNAR. Rome, Italy. Participation, Dr. G. Hariri.

June 2-6

Seventh World Congress of the International Association of Agricultural Librarians and Documentalists (IAALD), Ottawa, Canada. Presentation "Priorities in Information Management for Strengthening National Agricultural Research", by Mr. Peter Thorpe.

June 3-4

Agro-Energy Roundtable, Geneva, Switzerland. Paper presented by Dr. William K. Gamble.

June 17-22

Dr. William K. Gamble participated in the TAC/Center Directors - Program and Budget Meetings at IRRI. Los Baños, Philippines.

June 25-28

Specialized Seminar on Techniques of Communication. Douala, Cameroon. ISNAR team: Ms. M. de Lattre, Dr. R. B. Contant, Ms. T. Egerton.

July 7-9

CDA meeting on agricultural research management, Paris, France. Dr. T. Ajibola Taylor and Mr. H. Hobbs.

July 8-17

A mission for the assessment of training needs for the UNDP project: SYR/84/001 - Improvement of cotton production in Syria, Damascus and Aleppo, Syria. A field report prepared by Dr. G. Hariri.

July 21-24

USAID Workshop on Agricultural Education Evaluation, Washington, D.C., USA. Dr. T. Ajibola Taylor.

July 28-30

The First General Conference of the Association of Agricultural Research Institutions in the Near East and North Africa (AARINENA).

FAO/ICARDA/ISNAR. Damascus, Syria. Opening address by Dr. W. K. Gamble and presentation by Dr. G. Hariri.

August 12-14

Regional Cooperative Project IICA/BID/PROCISUR Board of Directors Meeting. Montevideo, Uruguay. Dr. Carlos Valverde, representing ISNAR.

August 26-27

Workshop for External Program Review Team. Ministry of Agriculture, Dominican Republic/ISNAR. Dr. Eduardo Trigo presented a paper, Working to Develop Support at the Political Level for National Agricultural Research: the Case of the Dominican Republic.

September 2-27

ISNAR/MAMC Workshop in agricultural research management. Mr. Huntington Hobbs led and delivered the workshop and Dr. Paul Bennell taught in this workshop. Mananga Agricultural Management Centre, Swaziland.

September 8-9

Inter-Center Meeting to draft strategy paper on training in Africa - ISNAR. Participation by Drs. William K. Gamble, T. Ajibola Taylor, and Dennis M. Wood.

September 16-October 31

Advisory mission to the Rwandan Institute of Agricultural Sciences (ISAR) in research programming and design. Rubona, Rwanda. ISNAR consultant: Mr. G. J. Kerkhoven.

October 1-5

IFPRI Board of Trustees, Washington, D.C., USA. Dr. T. Ajibola Taylor.

October 7-10

Third Technical Consultation of CARIS Participating Centres. FAO, Rome, Italy. ISNAR observer: Mr. Peter Thorpe.

October 7-13

Agricultural Research Management Workshop by Instituto Colombiano Agropecuario (ICA) and FAO. Mr. Huntington Hobbs made presentation on case method and led case study discussions. Girardot, Colombia

October 12-19

Meeting of CGIAR communication officers, Eschborn, Federal Republic of Germany. Mr. Alan M. Fletcher.

October 15-19
Agricultural Research Management
Course, FAO, Douala, Cameroon.
Observer: Dr. Dennis M. Wood.

October 21-25
Dr. William K. Gamble participated in
the TAC/Center Directors - Program
and Budget Meetings. Washington,
D. C.

October 22-25
Meeting of CGIAR Center Directors
and TAC, Washington, D.C., USA.
ISNAR delegation: Dr. W. K. Gamble,
Dr. R. B. Contant, Dr. H. K. Jain, and
Mr. C. A. Kramer

October 28-November 1
International Centers Week,
Washington, D.C., USA. ISNAR
delegation: Dr. W. K. Gamble, Dr. R. B.
Contant, Dr. H. K. Jain, and Mr. C. A.
Kramer.

November 5-30
Mid-term review of the Pakistan
Agricultural Research Development
Project. Participation by Dr. Byron
Mook.

November 18-22
USAID Workshop for Agricultural
and Rural Development Officers,
Lomé, Togo. Dr. T. Ajibola Taylor.

November 25-30
Workshop on Agricultural Research
Management for Instituto Nacional
Tecnologico Agropecuario (INTA).
Mr. H. Hobbs led and delivered the
workshop. Dr. Paul Bennell made
presentations on planning and
management of human resources.
Vaquerias, Argentina.

November 27
IFPRI-DSE Workshop on "Sources of
Change in the Variability of Cereal
Yields". Presentation of paper by
Dr. H. K. Jain on "New Agricultural
Technology for Improved Food
Security and Stability". Feldafing,
Federal Republic of Germany.

November 28
Conference on international
agricultural research organized by the
Government of Italy. Address on
behalf of CGIAR Chairman by Mr.
Alexander von der Osten. Rome, Italy.

November 30-December 9
Seminar "Strengthening of Regional
Agricultural Research in the
Caribbean". Port-of-Spain, Trinidad
& Tobago. Dr. Carlos Valverde,
representing ISNAR as participant
and discussant.

December 10-13
Indonesian farming systems research
and development workshop.
Sukarami Research Institute for
Food Crops, Padang, West Sumatra.
Paper: "Farming Systems Research
Between Theory and Practice", by
Dr. W. A. Stoop.

ISNAR's 1985 financial report



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Price Waterhouse Nederland



AUDITORS REPORT

We have examined the accompanying accounts for the year ended December 31, 1985 of International Service for National Agricultural Research (ISNAR).

Based on our examination, we are of the opinion that these accounts have been properly prepared using accounting principles consistent with those used in the preceding year to give the information required to be shown in accordance with the accounting procedures contained in the instructions issued by the Consultative Group on International Agricultural Research, Washington.

PRICE WATERHOUSE NEDERLAND

March 7, 1986.

BALANCE SHEET AT DECEMBER 31
(STATED IN U.S. DOLLARS)

	Notes*	1985	1984		Notes*	1985	1984
Current Assets				Liabilities			
Cash		1,315,676	516,096				
Receivables from Donors		196,364	163,492	Advance received on			
Other Receivables		79,513	137,187	1986 Core donation	3	874,060	318,004
Prepayments		<u>74,831</u>	<u>80,967</u>	Accrued Expenses	4	<u>344,396</u>	<u>285,475</u>
Total Current Assets		<u>1,666,384</u>	<u>897,742</u>	Total Liabilities		<u>1,218,456</u>	<u>603,479</u>
 Fixed Assets				 Fund Balances			
	2			Invested in Fixed Assets		786,693	675,011
Vehicles		23,234	23,234	Unexpended Funds:			
Furnishings and Office				- Core-Unrestricted		(23,738)	(29,696)
Equipment		<u>763,459</u>	<u>651,777</u>	- Working Fund	5	310,000	310,000
Total Fixed Assets		<u>786,693</u>	<u>675,011</u>	- Special Projects	10	<u>161,666</u>	<u>13,959</u>
				Total Fund Balances		<u>1,234,621</u>	<u>969,274</u>
 TOTAL ASSETS		 <u>\$2,453,077</u>	 <u>\$1,572,753</u>	 TOTAL LIABILITIES			
				AND CAPITAL		<u>\$2,453,077</u>	<u>\$1,572,753</u>

* see page 82.

RECEIVABLES FROM DONORS AS AT 31 DECEMBER 1985 (STATED IN U.S. DOLLARS)

<u>Donor</u>	<u>Amount Pledged in Original Currency</u>	<u>US\$ Equivalent at Time of Pledge</u>	<u>Payment in Original Currency</u>	<u>Received During the Year</u>	<u>Exchange Loss / (Gain)</u>	<u>Balance Outstanding at the Year End</u>
CORE UNRESTRICTED OPERATING GRANTS						
Australia	Aus\$ 154,000	133,103	Aus\$ 154,000	111,438	21,665	—○—
Belgium	BF 2,000,000	33,727	BF —○—	—○—	—○—	33,727
Canada	Can\$ 300,000	250,000	Can\$ 300,000	224,169	25,831	—○—
EEC	ECU 200,000	151,194	ECU —○—	—○—	—○—	151,194
Federal Rep. of Germany	DM 300,000	102,180	DM 300,000	98,678	3,502	—○—
Ford Foundation	US\$ 75,000	75,000	US\$ 75,000	75,000	—○—	—○—
France	FF 1,000,000	120,000	FF 1,000,000	106,956	13,044	—○—
IBRD	US\$ 920,000	920,000	US\$ 920,000	920,000	—○—	—○—
Ireland	IrPds 75,000	79,014	IrPds 75,000	75,173	3,841	—○—
Italy	L 300,000,000	164,100	L 300,000,000	173,952	(9,852)	—○—
Netherlands	Dfl 600,000	181,050	Dfl 600,000	184,769	(3,719)	—○—
Philippines	US\$ 25,000	25,000	US\$ 11,648	11,648	1,909*	11,443
Spain	US\$ 25,000	25,000	US\$ 25,000	25,000	—○—	—○—
Sweden	Skr 100,000	11,855	Skr 100,000	10,717	1,138	—○—
Switzerland	Swf 400,000	165,975	Swf 400,000	178,161	(12,186)	—○—
UK	PdsSt 120,000	152,769	PdsSt 120,000	156,813	(4,044)	—○—
USAID	US\$ 900,000	900,000	US\$ 900,000	900,000	—○—	—○—
		<u>3,489,967</u>		<u>3,252,474</u>	<u>41,129</u>	<u>196,364</u>
Netherlands additional funds received	US\$ 160,000	<u>160,000</u>	US\$ 160,000	<u>160,000</u>	<u>—○—</u>	<u>—○—</u>
Total Core Unrestricted Operating Grants 1985		<u>3,649,967</u>		<u>3,412,474</u>	<u>41,129</u>	<u>196,364</u>
Note:						
Applied to Capital		(18,000)				
Earned Income Applied in the Year		82,387				
Over-expenditure Prior Year		<u>(29,696)</u>				
Revised 1985 Budget		<u>3,684,658</u>				
CAPITAL - RESTRICTED GRANT						
Federal Rep. of Germany	DM 62,000	<u>24,086</u>	DM 62,000	<u>24,086</u>	<u>—○—</u>	<u>—○—</u>

* Arising from switch in currency of pledge.

**STATEMENT OF SOURCES AND APPLICATION OF FUNDS
FOR THE YEAR ENDED DECEMBER 31, 1985
(STATED IN U.S. DOLLARS)**

	Notes*	1985	1984		Notes*	1985	1984
Source of Funds				Application of Funds			
1.- Core Operations				1.- Core Operations - Unrestricted			
Unrestricted		\$3,631,967	\$3,289,653	Review and Planning NARS		\$1,807,961	\$1,335,207
Unexpended Balance from Prior Year		(29,696)	(3,438)	Research Studies		320,774	312,028
Earned Income Applied in Year		82,387	21,174	Conferences and Training		279,184	264,208
		<u>\$3,684,658</u>	<u>\$3,307,389</u>	Information Services		471,758	402,427
				General Administration		653,719	486,460
				General Operating Costs	8	—o—	536,755
				Mandatory review 1985	9	175,000	—o—
						<u>\$3,708,396</u>	<u>\$3,337,085</u>
2.- Capital				2.- Capital			
Unrestricted		\$ 18,000	\$ —o—	Capital Additions		\$ 111,682	\$ 31,000
Restricted		24,086	—o—				
Working Fund		310,000	310,000				
Earned Income Applied in Year		69,596	31,000				
		<u>\$ 421,682</u>	<u>\$ 341,000</u>				
3.- Special Projects - Cumulative				3.- Special Projects - Cumulative			
Income on Projects not Completed		\$1,547,816	\$ 948,636	Expenditure on Projects not Completed		\$1,386,150	\$ 934,677
				4.- Unexpended Balance			
				Core - Unrestricted		\$ (23,738)	\$ (29,696)
				Working Fund		310,000	310,000
				Special Projects		161,666	13,959
						<u>\$ 447,928</u>	<u>\$ 294,263</u>
TOTAL FUNDS		<u>\$5,654,156</u>	<u>\$4,597,025</u>	TOTAL APPLICATION OF FUNDS		<u>\$5,654,156</u>	<u>\$4,597,025</u>

* see page 82.

**FUNDS PROVIDED AND COSTS
FOR THE YEAR ENDED DECEMBER 31, 1985
(STATED IN U.S. DOLLARS)**

	<u>Funds Received</u>	<u>Fixed Assets</u>	<u>Review & Planning NARS</u>	<u>Research Studies</u>	<u>Conferen- ces and Training</u>	<u>Infor- mation Services</u>	<u>General Admin.</u>	<u>Mandatory Review 1985</u>	<u>Total Costs</u>	<u>Transfer to Unexpended Balance</u>
Unrestricted Core	3,684,658	—○—	1,807,961	320,774	279,184	471,758	653,719	175,000	3,708,396	(23,738)
Capital Grants	111,682	111,682	—○—	—○—	—○—	—○—	—○—	—○—	111,682	—○—
Working Fund	310,000	—○—	—○—	—○—	—○—	—○—	—○—	—○—	—○—	310,000
Special Projects	<u>1,547,816</u>	<u>—○—</u>	<u>1,386,150</u>	<u>—○—</u>	<u>—○—</u>	<u>—○—</u>	<u>—○—</u>	<u>—○—</u>	<u>1,386,150</u>	<u>161,666</u>
TOTAL GRANTS & EXPENSES	<u>\$5,654,156</u>	<u>\$111,682</u>	<u>\$3,194,111</u>	<u>\$320,774</u>	<u>\$279,184</u>	<u>\$471,758</u>	<u>\$653,719</u>	<u>\$175,000</u>	<u>\$5,206,228</u>	<u>\$447,928</u>

**SCHEDULE OF EARNED INCOME
FOR THE YEAR ENDED DECEMBER 31, 1985
(STATED IN U.S. DOLLARS)**

	Notes*	1985	1984
Source of Earned Income			
Bank Interest		24,324	24,505
Charges by ISNAR for Staff Services to Special Projects	10	127,659	31,731
Income Arising on Special Projects Completed		<u>—0—</u>	<u>(4,062)</u>
		<u>\$151,983</u>	<u>\$52,174</u>
Application of Earned Income			
Applied to Core Operations		82,387	21,174
Applied to Capital		<u>69,596</u>	<u>31,000</u>
		<u>\$151,983</u>	<u>\$52,174</u>

* see page 82.

**COMPARATIVE STATEMENT OF ACTUAL EXPENSES AND APPROVED BUDGET
FOR THE YEAR ENDED DECEMBER 31, 1985
(STATED IN U.S. DOLLARS)**

	<u>Core Unrestricted</u>		<u>Capital</u>	
	<u>Budget</u>	<u>Actual</u>	<u>Budget</u>	<u>Actual</u>
Programs				
Review and Planning NARS	1,830,698	1,807,961		
Research Studies	317,383	320,774		
Conferences and Training	283,861	279,184		
Information Services	453,481	471,758		
General Administration	711,577	653,719		
Mandatory Review 1985	<u>175,000</u>	<u>175,000</u>		
<u>Approved Budget</u>	\$3,772,000	\$3,708,396		
<u>Budget Shortfall</u>	(87,342)			
<u>Revised Budget</u>	\$3,684,658	<u>\$3,708,396</u>		
Unexpended Balance-Deficit	\$ <u>(23,738)</u>			
 <u>Capital</u>				
Fixed Assets			31,000	111,682
Working Fund			<u>310,000</u>	<u>310,000</u>
			<u>\$341,000</u>	<u>\$421,682</u>

**NOTES TO THE ACCOUNTS
DECEMBER 31, 1985**

1.- Translation of Currencies other than U.S. Dollars

Balances denominated in foreign currencies are translated at an exchange rate approximating the rate prevailing at balance sheet date. Transactions denominated in foreign currencies are translated at the approximate rate ruling at the date of the transaction. Realised exchange gains as well as realised and unrealised exchange losses are recorded (net) in Core Expenditure. Unrealised exchange gains are not recognised.

2.- Fixed Assets

Fixed assets are stated at cost with no charge for depreciation.

3.- Advance Received on 1986 Core Donation

This consists of advances received from IBRD of US\$ 800,000 and the Government of Canada of US\$ 74,060.

4.- Accrued Expenses

Commitments made up to 15 December 1985 and remaining unexecuted as of the Balance Sheet date, have been accrued for.

5.- Working Fund

This represents approximately 30 days average operating cost requirement based on the 1986 budget.

6.- Retirement Fund

ISNAR contributes to a pension fund for all staff for which all vested benefits are fully paid annually.

7.- Office Rent

There is a rent increment each year based on the CBS cost of living index of the Netherlands. ISNAR has the option to sub-let if it should terminate or transfer from The Hague.

8.- General Operating Costs

With effect from January 1, 1985 the accounting policy for the treatment of general operating costs was amended. These costs are now allocated to the various areas of operations on the basis of the relevant man-years applicable to each cost center.

9.- Mandatory Review 1985

During the year a mandatory review of ISNAR's operations for the period since inception to 1984 took place. This was performed by a panel commissioned by the CGIAR, its objectives being to review management and program activities.

10.- Special Projects

Special Projects are those funded outside the core budget and are accounted for on completion and not on a calendar year basis. The balance on projects not completed at the balance sheet date is included in Unexpended Fund balances. Cumulative expenditure includes direct project costs and a charge for ISNAR staff services provided. This charge is credited to earned income. Any surplus arising on the completion of a project is refunded to the donor.

Special Project movements for the year can be summarized as follows:

	<u>Cumulative Income</u>	<u>Cumulative Expenditure</u>	<u>Net Balance</u>
Balance January 1	948,636	934,677	13,959
Additions in the year	917,014	769,307	147,707
Projects Completed	<u>(317,834)</u>	<u>(317,834)</u>	<u>—o—</u>
Balance December 31	<u>1,547,816</u>	<u>1,386,150</u>	<u>161,666</u>

Funds received during the year comprise the following:

- (i) \$8,623 received from the University of Wisconsin under Contract to USAID for ISNAR assistance to the University of Wisconsin/Gambia Agricultural Research and Diversification Project.
- (ii) \$60,584 received from the Government of the Philippines under a loan from World Bank for review of the agricultural research program of the Ministry of Agriculture and Food.
- (iii) \$66,789 received from Rwanda/IDA under Contract between the Government of the Republic of Rwanda and ISNAR for advisory services in agricultural research management provided by ISNAR to the Rwanda Institute of Agricultural Sciences (ISAR).
- (iv) \$60,000 received from the International Development Research Centre for support to the interim director for INIBAP.
- (v) \$14,795 received from the International Development Research Centre (IDRC) in further support of the agricultural research organization and performance program (PROAGRO) being carried out in Latin America.
- (vi) \$6,672 received from the Government of Australia for preparation of the international IFARD Conference to be held in Brazil in October 1986.
- (vii) \$48,028 received from Madagascar/IDA as interim payment on the contract for technical assistance in agricultural research management to be provided by ISNAR to the National Center for Research Applied to Rural Development "FOFIFA".
- (viii) \$3,653 received from the Overseas Development Administration of the United Kingdom as continued support toward a field study on agricultural management, case writing, and workshops in Africa. (CDA strengthening of Agricultural Research Management in Africa.)
- (ix) \$5,000 received from the Rockefeller Foundation for preparation of a project to post an ISNAR liaison scientist to the Southern African Development and Coordination Conference (SADCC).
- (x) \$70,575 received from Rutgers University under Contract to USAID for testing of a

methodology for studying agricultural technology management systems in Latin America, with a case study in Panama.

(xi) \$4,500 received from SAFGRAD for ISNAR assistance to the SAFGRAD master plan.

(xii) \$20,750 received from the United Nations Development Programme (UNDP) for the Study of the Integration of IARC Activity in Southern Africa, SADCC (A) and (B).

(xiii) \$156,714 received from the U.S. Agency for International Development as continued support toward a field study on agricultural management, case writing, and workshops in Africa. (CDA strengthening of Agricultural Research Management in Africa.)

(xiv) \$25,000 received from USAID/Dominican Republic as an initial payment for ISNAR assistance in the establishment of the Instituto Dominicano de Investigaciones Agropecuarias.

(xv) \$11,999 received from the U.S. Agency for International Development/Kenya as final payment for a study of the agricultural research system in Kenya and preparation of a comprehensive medium-term national research strategy and program.

(xvi) \$17,704 received from USAID/Somalia for work with Somali research personnel to help define and plan the technical elements of an agricultural research capability development program.

(xvii) \$30,411 received from the Government of Tunisia under a World Bank loan for work undertaken to evaluate the institutional structure of the Tunisian agricultural research system and to establish an integrated program for future research activities.

(xviii) \$46,000 received from the Rockefeller Foundation as final payment on their support for the seminar entitled "Inter-Center Seminar on Women and Agricultural Technology" held at the Bellagio Center in March 1985.

(xix) \$48,743 received as final payment from USAID/Zaire to assist the Government of Zaire to develop and promulgate directives for establishment of a sound agricultural research policy and institutional framework responsive to the agricultural sector needs of Zaire.

(xx) \$26,000 received from the Rockefeller Foundation for support of a Research Fellow with responsibilities for the On-Farm Research Project.

(xxi) \$144,960 received from the Italian Government for the On-Farm Research Project analyzing managerial implications for national research organizations conducting on-farm activities.

(xxii) \$24,348 received from the Overseas Development Administration (ODA) as final payment for a study of the agricultural research system in Kenya and preparation of a comprehensive medium-term national research strategy and program.

(xxiii) \$7,670 received from the Government of the Netherlands as final payment for a study of the agricultural research system in Kenya and preparation of a comprehensive medium-term national research strategy and program.

(xxiv) \$9,000 received from USAID/Cameroon for a seminar on Techniques of Communication, delivered to staff from two Cameroonian research institutes in June 1985.

(xxv) \$5,543 received from UNDP for the participation of an ISNAR staff member in the final formulation mission of a UNDP project for the improvement of Cotton Production in Syria.

Deducted from the total under item **Additions in the Year** is the amount of \$7,047 refunded to the International Maize and Wheat Improvement Center (CIMMYT) for their support of a case writing program and seminar based on the results of the cases.



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