

ISNAR's mandate

The mandate of the International Service for National Agricultural Research (ISNAR) is to assist developing countries in bringing about lasting improvements in the performance of their national agricultural research systems and organizations. It does this by promoting appropriate agricultural research policies, sustainable research institutions, and improved research management. ISNAR's services to national research are ultimately intended to benefit producers and consumers in developing countries and to safeguard the natural environment for future generations.

ISNAR was established in 1979 by the Consultative Group on International Agricultural Research (CGIAR), on the basis of recommendations from an international task force. It began operating at its headquarters in The Hague, the Netherlands, on September 1, 1980.

**A Selection of Training Modules and Materials
on
Agricultural Research Management**

October 1996

ISNAR

International Service for National Agricultural Research

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ISNAR's training philosophy is to help strengthen national agricultural research systems (NARS) by developing the human resources needed to manage research, and training. ISNAR believes that successful training must be practical and relevant to NARS' needs and that national training needs are best satisfied by national organizations. That is why ISNAR works in partnership with agricultural research institutes and invites the participation of training centers, extension agencies, and universities in conducting training activities.



Training at ISNAR

Training reinforces ISNAR's role in strengthening NARS by focusing on professional development in areas of research policy, organization, and management. Training is targeted at agricultural research managers-leaders in developing countries. It aims at seeking multipliers, and therefore includes programs to train trainers, national training staff, and the production of training modules. These activities are done in partnership with NARS to ensure their practicality and appropriateness.

Training materials

The production of training materials specifically for agricultural research managers is one of ISNAR's key activities. With these materials, ISNAR aims to provide agricultural research management trainers in developing countries with a comprehensive set of structured information to support their training activities and facilitate learning.

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About this catalog

This catalog lists a selection of training modules and materials that has been developed and used by ISNAR while providing services to developing-country NARS. The materials are available at ISNAR's discretion to interested institutions and individuals. Inquiries should be sent to

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The first section of the catalog lists training modules, which are designed for workshops lasting up to two weeks. The second part presents a few audiovisual materials. The materials are listed in the language in which they are written. An exception is the modules in the Planning, Monitoring, and Evaluation Training Series. These modules are listed in English, but are available in both English and Spanish. ISNAR invites comments on this catalog, and on the modules and materials listed. The materials and the catalog are continuously improved through such feedback.

Part I: A Selection of Training Modules

Training modules are produced by ISNAR in cooperation with national agricultural research organizations (NAROs) management development institutions, and individuals in both developed and developing countries. The modules focus on aspects of agricultural research management and provide “researchers-trainers” with both a training plan and training materials. These elements are designed to improve the knowledge, attitudes, and skills needed to manage agricultural research effectively.

Each training module comprises a **curriculum**, including learning objectives for each day’s activities, descriptions of the **training approach, methods, and techniques**, and master copies of **handouts, worksheets, overhead transparencies, slides**, and other training media that can easily be reproduced for distribution among workshop participants. In addition, the training modules include **registration** and **evaluation forms** and a recommended **bibliography** for use by the trainers.

Texts and exercises for the modules have been collected from all parts of the world. Original sources are acknowledged whenever possible. In order to ensure the relevance of diverse materials, exercises that were developed for use by a particular region or organization have been rewritten and revised. Individual trainers, the main users of the training modules, should adapt the materials to respond to the specific needs of their audience.

SADC/ESAMI/ISNAR

Agricultural Research Management Training Modules

Priority Setting for Agricultural Research Programs

Priority setting is a process that helps research leaders select the best portfolio of activities for a particular research program institution, or system. Clearly set priorities help to make institutional management more transparent and unambiguous. They provide guidance to management, and if clearly exposed, they clarify the expectations of personnel and stakeholders.

This module provides trainers and trainees with materials to demonstrate how priority setting can help an organization make the most effective use of its research resources. The presentations explain how priority setting can lead to clarification and consensus within the organization on how current resource allocations reflect (or should reflect) research priorities that already exist. Exercises and case studies show how priority setting may bring to light differences of opinion that exist within an organization and provide occasion for debating and resolving those differences.

In addition to notes to trainers, this module contains 169 overhead transparencies, 91 handouts, and 16 exercises. 536 pages.

Duration

The workshop is planned for five days.

Sessions

1 Introduction to the workshop 2 Importance of priority setting in agricultural research 3 Institutional structures and levels of priority setting 4 Basic processes in priority setting 5 Identifying research objectives 6 Methods to define research priorities 7 Research alternatives Identification of research target zones 8 Using spreadsheets in priority setting 9 Maps identifying research target zones 10 Application of congruency methods 11 Identification of major research themes through constraint analysis 12 Research alternatives identification of the potential generation and adoption of technologies 13 Estimating economic surplus benefits 14 Scoring inclusion of multiple criteria in priority setting 15 Managing the priority setting process 16 Data collection 17 The priority-setting process 18 Participant action plan approach (PAPA)

Planning, Monitoring, and Evaluation of Research Projects

This module explains the basics of designing and carrying out systematic planning, monitoring, and evaluation (PM&E) in a national agricultural research institute. By providing critical information on the status of current and finished projects, PM&E ensures better use of scarce resources and lends both transparency and accountability to research institutes' undertakings. The module emphasizes key concepts and practicability. It looks at PM&E as a cycle, that is, the evaluation of completed research should be conducted not as "end" in itself, but rather as a 'beginning' of another cycle. The design of efficient data-capturing schemes, the implementation of the schemes with the full support of all stakeholders, and the appropriate analysis of the data are given special attention. Participants in this workshop will learn to derive from PM&E processes critical information essential for management decision making.

In addition to notes to trainers, this module contains 88 overhead transparencies, 65 handouts, and 17 exercises. 524 pages.

Duration

The workshop is planned for five days.

Sessions

1 Introduction 2 Project management and planning, monitoring, and evaluation 3 Principles and concepts of planning, monitoring, and evaluation 4 Identifying research project objectives 5 Preparing research project proposals 6 Designing a format for a research project proposal 7 The peer review process 8 Approving projects and committing resources 9 Monitoring ongoing research projects 10 Organizing an internal program review 11 The format of research progress reports 12 Preparation of a format for project progress reports 13 Evaluating completed research projects 14 Impact assessment 15 Consolidation of the project planning cycle 16 Institutionalizing planning, monitoring, and evaluation 17 Participant action plan approach (PAPA)

Information Management for Research

National agricultural research systems (NARS) need to develop adequate skills and resources to manage their information requirements. Sound information is required at all levels of any NARS, from research scientists through to policymakers. The presentations in this module show why institutions and their managers need effective and efficient systems for collecting, processing, and disseminating critical information. It reviews technologies for creating such systems and explains that because the systems are constantly advancing, it is necessary for managers to regularly update and enhance their skills in developing and using them.

In addition to notes to trainers, this module contains about 118 overhead transparencies, 149 handouts, and 23 exercises approx. 600 pages.

Note: ISNAR considers this module a draft because it has not been field tested.

Duration

Workshop is planned for 10 days.

Sessions

1 Introduction to the workshop 2 Concepts of information and communication 3 Database management fundamentals of database systems 4 The role of MIS in agriculture and natural resources research 5 Information technology overview 6 MIS (for research program analysis, for human resources, and for financial resources) 7 INFORM: an information system for agricultural research management 8 Planning and development of MIS (overview, data collection) 9 Development and management of physical resources 10 Computer basics 11 Establishment and development of MIS (data analysis) 12 Designing a database (structure, forms, queries, and reports) 13 MIS project initiation 14 Database management: security, recovery, and integrity 15 Introduction to Lotus 1-2-3 16 Participant action plan approach (PAPA)

Scientific Writing and Presentation

This module equips agricultural scientists with the necessary skills and improved competence for effective written and oral communications. Scientific writing is a form of communication with distance audience, while oral presentation is a face-to-face communication with a restricted or limited audience. Both are important because they offer avenues through which scientists can share their findings and get feedback and information related to their work.

In addition to notes to trainers, this module contains 100 overhead transparencies, 49 handouts, and 17 exercises. 550 pages.

Duration

The workshop is planned for five days.

Sessions

1. When a scientist reports research. 2. How to write and publish a scientific paper (acknowledgments and references, writing and rewriting, paragraphing, logical arrangement of paragraphs, concrete words, work with words, phrases that say little, types of English sentences, simple, compound, and complex sentences, active and passive sentences, measuring readability, measuring readability with the computer, editing). 3. Participants' writing practice. 4. Oral presentation (preparation of visual aids for oral presentation, use of the computer for preparation of visual aids). 5. Participant action plan approach (PAPA).

Research Program Formulation

Agricultural research managers must ensure that the research programs under their charge are well defined and designed and are closely targeted to national objectives for agricultural development and technology. The professionals involved in the process of research program formulation must constitute multidisciplinary teams and be supplied with appropriate information to make relevant and effective decisions. They must select priority-setting methods appropriate to meet the needs of the various groups. This module provides the users with the opportunity to analyze and discuss general principles and exercising procedures for developing research program formulation in agricultural research organizations.

In addition to notes to trainers, this module contains 129 overhead transparencies, 107 handouts, and 18 exercises approx 500 pages

Duration

The workshop is planned for five days

Sessions

1 Introduction to the workshop 2 Program formulation context, terminology, and rationale 3 Sub-sector review, stakeholders, and clients' consultation 4 Evaluation of research 5 Constraint analysis 6 Identifying research objectives and strategy 7 Project identification 8 Priority setting in program formulation 9 Priority setting approach and methodologies 10 Resource gap analysis 11 Program formulation and priority setting for natural resource management 12 Managing the multidisciplinary research program 13 Implementation of program formulation 14 Project development checklist and resource requirements 15 The research proposal process 16 Participant action plan approach (PAPA)

Financial Management for Research on Agriculture and Natural Resource Management

The importance of sound financial management cannot be overstated, and no agricultural research organization can carry out its programs without it. This module, therefore, provides managers with a clear understanding of the basic theoretical and practical processes that financial management entails. This includes budgeting and resource allocation, especially within national agricultural research organizations. A series of financial management concepts are discussed. These range from general aspects of resource management, financial planning, and budgeting, to how to institutionalize financial management activities in research organizations, and how managers can identify and obtain financial resources to carry out their research objectives.

In addition to notes to trainers, this module contains 95 overhead transparencies, 70 handouts, and 17 exercises. 459 pages.

Duration

The workshop is planned for five days.

Sessions

1 Introduction 2 Financial management in NARS 3 The financial management process 4 The financial planning cycle 5 Financial forecasting 6 Generating funds 7 Budget preparation 8 Cost and cost allocation 9 The master budget 10 The project budgeting process 11 Budgetary control systems 12 Accounting 13 Financial reports 14 Qualitative aspects of financial reports 15 Monitoring and evaluation in financial management 16 Promoting research programs with funding agencies 17 Institutionalization of financial management 18 Participant action plan approach (PAPA)

Strategic Planning

The turmoil, uncertainties and breakthroughs of the 1990s have taken many public institutions by surprise. Many organizations' missions are no longer valid, and many institutions lack external reference points to help them understand ongoing changes and the adjustments needed. This module explains why adequate internal mechanisms to chart a new course for institutional development are needed and why a growing number of agricultural research organizations in developing countries are discovering the importance of strategic planning as an approach to adjusting to the needs and challenges of changing national and international conditions. This module introduces the main concepts, methods, and instruments of strategic planning, which can be used to define the mission, goals, policies, and strategies of a research organization.

In addition to notes to trainers, the module contains 130 overhead transparencies, 66 handouts, and 16 exercises. 485 pages.

Duration

The workshop is planned for five days.

Sessions

1 Introduction 2 Conceptual framework for planning 3 Strategic planning 4 Structural elements of an organization 5 External analysis 6 Vision and mission formulation 7 The management process 8 Formulating objectives 9 Formulating policies 10 Formulating strategies 11 Validating the mission, objectives, and policies 12 Reviewing strategic planning and integrated mechanisms 13 Assessing organizational performance 14 Institutional performance assessment 15 The process of institutional assessment 16 Checklist of activities for the planning steps 17 Planners' roles and responsibilities 18 Institutionalization of planning 19 Participant action plan approach (PAPA)

Gender Analysis for Management of Research in Agriculture and Natural Resources

Over the past two decades, the relevance of gender roles and relations in agricultural development has been acknowledged by most national and regional agricultural research institutions. There is a growing realization, however, that despite some quantitative improvements in the participation of women in agricultural research structures and processes, the institutionalization of gender awareness in most research systems has not yet been achieved. The main purpose of this module is to facilitate gender awareness and learning in national research institutions. It provides scientists and managers the opportunity and methods to examine the evolution of gender issues in research and to incorporate gender analysis into their work. The sessions incorporate case studies and participatory exercises. Considerable attention is given to the participant action plan approach which will define and operationalize action-oriented initiatives to promote gender awareness and analysis.

In addition to notes to trainers, the module contains 78 overhead transparencies, 72 handouts, and 9 exercises approx 400 pages

Note ISNAR considers this module a draft because it has not been field tested

Duration

The workshop is planned for four days

Sessions

1 Introduction 2 The evolution of gender analysis 3 Concepts and national context 4 Gender relations and technology development and transfer 5 Institutional capacity building 6 Specific or integrated approaches to gender-conscious policy and programs 7 Gender impact assessment 8 Data collection, analysis and dissemination 9 Information support services 10 Participant action plan approach (PAPA)

KARI/ISNAR Training Modules

Assessing Training Needs and Organizational Constraints

This module presents the basic framework and methodology of an ISNAR-developed management and technical training needs and organizational constraints assessment (TNA). TNA is an important first phase of the training process. It provides accurate information for the design of an effective training program, which can respond to the actual needs of the participants. The series of activities presented in the module facilitates participants' awareness of the skills they need to do the management and technical aspects of their jobs, as well as the organizational constraints preventing them from performing better.

Although this module was developed for use at KARI in Kenya, ISNAR hopes that the step-by-step action methodology will provide information and guidance to agricultural research managers, extension officers, and trainers in other organizations, so that they can carry out similar exercises to improve the effectiveness of their management training programs.

This module contains 80 overhead transparencies, three handouts, and eight exercises. It can be used in conjunction with the TNA video (ISNAR's experience in Uganda).

Duration

The TNA described in the module is carried out in nine, two-day workshops. Each workshop is attended by a small group of participants from different layers of the organization. These include top management, scientists, and technical and administrative support staff. The workshops present the TNA framework and methodology tailored to the needs of the specific audience.

Sessions

1 Introduction 2 The analytical framework of agricultural research management and the concept of institutional development 3 Jobs, duties, and task analysis 4 Review of job descriptions 5 Identification of requirements 6 Identification of gaps 7 Setting priorities based on TNA results 8 Identification of constraints within the organization 9 Closure

Strengthening Linkages between Research and Technology Users

Tackling the production problems of subsistence-level farmers has become high priority for developing-country leaders. Unlike their commercial counterparts, the millions of rural families engaged in subsistence agriculture in developing countries cannot afford the risk of adjusting technologies to their own needs and conditions. Technologies need to be tailored to the conditions of subsistence farmers. At the same time, subsistence farmers often do not have the political power to influence policies and resource allocation in a way that would make research more responsive to their needs and priorities.

This module provides an introduction to the strengthening of linkages between research and technology users. It presents information for preparing the groundwork for a better understanding of linkages and the development of useful tools and guidelines for managers of research and leaders and farmers' organizations. The case study and examples in the module offer some of the lessons, recommendations, and tools available for 'strengthening linkages' to research managers.

In addition to notes to trainers, the module contains 99 overhead transparencies, 64 handouts, and 11 exercises. 358 pages.

Duration

The workshop is five days.

Sessions

1 Introduction 2 Research-extension-farmer linkages 3 Linkages concepts
4 Choice of linkages and linkage mechanisms 5 Management of linkages
6 Resources of linkages 7 Contextual factors 8 Analytical framework for linkages
9 Assessment of constraints on linkages in research 10 Development of action plan to overcome major constraints in linkages
11 Participant action plan approach (PAPA)

Participatory Research

Modern agriculture technologies have significantly increased productivity for many producers, but often remain inaccessible to resource-poor farmers in marginal environments. Stimulating agricultural development in marginal conditions requires new strategies, additional partners, and changing roles for formal research. This entails the promotion and development of participatory approaches and methodologies.

This module is designed to be highly participatory in its delivery. It includes interactive presentations and exercises which describe participatory research as a compilation of established methodologies that involves farmers in the definition of the research agenda, the conduct of research, monitoring and evaluation, and dissemination of results. Participatory rural appraisal (PRA) is one set of methodologies that can enhance the communication between farmers and scientists. Group work and discussions stimulated by the module will encourage understanding that PRA is useful for both researchers and farmers, as it provides a system of joint data collection, verification and analysis in the identification of farmers' criteria and priorities for research planning, monitoring, and evaluation. The module also shows how PRA can help to ensure that technologies are tested and are adapted by small farmers in varied socioeconomic and environmental conditions.

In addition to notes to trainers, the module contains 92 overhead transparencies, 107 handouts, and 20 exercises. Approx. 500 pages.

Duration

The workshop is planned for ten days.

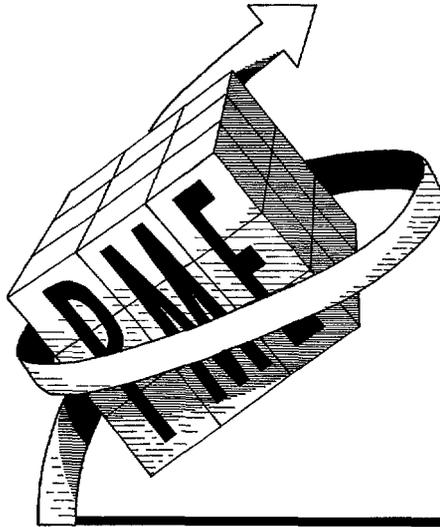
Sessions

1 Introduction to the workshop 2 Introduction to participatory research 3 Interdisciplinary team building group cycle and conflict resolution 4 Team problem solving 5 Participatory research in maize breeding 6 PRA in agricultural research 7 Steps in conducting PRA 8 Simulation of community life 9 Communicating with farmers 10 Documentation and report writing 11 Fieldwork (launching a community meeting, sketch a map, time lines, trends, seasonal calendar, household interview farm sketches, material resource flow, community institution and gender daily calendar, listing of problems and opportunities, community action plan and final community meeting) 12 Participatory monitoring and evaluation 13 Identification of and how to overcome major constraints in participatory research 14 Participant action plan approach

Planning, Monitoring, and Evaluation Training Series

The four modules in this series were developed by ISNAR and a team of managers-trainers from NARS for use in Latin America and the Caribbean. Each is available in Spanish as well as English. While the modules are generally meant to be used in sequence, individual modules can also be used alone to suit specific training needs. In this case, the instructor can summarize the material covered in the other modules by quickly reviewing their contents.

The series of four modules is designed to be delivered in a five- or six-day workshop in which one day is allocated to each module and one to two days are for action planning and for opening and closing sessions.



Module 1. The Strategic Approach to Agricultural Research Management

This module guides learners in critically analyzing the current global situation as it relates to their agricultural research organization. What changes are occurring? How are these changes affecting research institutions in general, and agricultural research institutes in particular? What can be done to ensure the sustainability of agricultural research institutions? The module begins by introducing the strategic approach and discussing how it can be applied in agricultural research, including recommendations for strengthening planning, monitoring, and evaluation (PM&E). The second section addresses the institutional context and discusses PM&E in Latin America and the Caribbean. A critical analysis is based on summaries of 13 case studies carried out in the Americas. The final section presents strategies to strengthen PM&E, and includes a review of basic principles and requirements for designing a PM&E system in an agricultural research institute.

In addition to notes to trainers, this module contains 39 overhead transparencies, a 47-page students' workbook, and three exercises.

Duration

This module is designed to be presented in one day.

Sessions

1 PM&E and the strategic approach (strategic approach to management, role of PM&E in institutional development, guidelines for designing a PM&E system, analysis of the contributions of the strategic approach) 2 The institutional context and PM&E in the region (global changes and institutional sustainability, PM&E in the region, analysis of global changes and institutional sustainability) 3 Strategies to strengthen PM&E (guidelines for developing strategies, managing elements to develop strategies) 4 Workshop evaluation

Module 2. Strategic Planning in Agricultural Research Management

This module introduces the main concepts, methods, and tools of strategic planning at the institutional and research program levels. Strategic planning—planning that incorporates the strategic approach—has the potential to strengthen and improve the performance of agricultural research institutions. However, to have this effect, it must be carried out as an integral part of a PM&E system. This module is divided into three instructional sequences that show how to apply the strategic approach to planning. The first sequence presents the framework for strategic planning, showing the need to incorporate strategic planning into the management of agricultural research institutions. Sequence two guides participants in the analysis of the external and internal environment of their organization, identifying both strengths and weaknesses. The final sequence presents a strategic planning approach to formulate an organization's mission, goals, policies, and strategies.

In addition to notes to trainers, this module contains 24 overhead transparencies, a 62-page students' workbook, and three exercises.

Duration

This module is designed to be presented in one day.

Sessions

- 1 Framework (planning in Latin America and the Caribbean, conceptual framework for planning, guidelines for exercises, critical planning factors)
- 2 Analyzing context (organization, and gaps (external analysis, organizational analysis, external internal, and gap analyses)
- 3 Formulating a strategic plan (formulating the mission, formulating the objectives, formulating the policies, validating the mission, objectives, and policies, formulating the strategies, formulating mission, objectives, policies, and strategies, panel on institutionalization of planning)
- 4 Workshop evaluation

Module 3. Monitoring in Agricultural Research Management

This module presents monitoring as an integral part of the planning and evaluation process. It begins with an analysis of the context for monitoring dealing with the status of agricultural research monitoring in Latin America and the Caribbean. Participants are then presented a conceptual framework for monitoring with special emphasis on the strategic approach for research management and on the scope and effectiveness of a monitoring system. Special emphasis is put on the project as a unit for monitoring research, even though monitoring at other programming levels is also discussed. The management cycle and the logical framework are presented as tools for formulating projects and for subsequent monitoring. A detailed analysis is made of three monitoring instruments: progress reports, internal reviews, and project databases.

In addition to notes to trainers, this module contains 19 overhead transparencies, a 71-page students' workbook, and six exercises.

Duration

This module is designed to be presented in one day.

Sessions

1. A framework for monitoring in agricultural research (present situation of monitoring in the region, conceptual framework for monitoring agricultural research, design and implementation of a monitoring system, analysis of the scope of a monitoring system, analysis of the effectiveness of a monitoring system)
2. The project as a PM&E tool (the project as a management unit in agricultural research, the logical framework as a tool for preparing, monitoring, and evaluating projects, analysis of a project)
3. Instruments for monitoring (progress reports, internal reviews, project databases, analysis of progress reports, panel on internal reviews, case study on a project database)
4. Proposal preparation for strengthening a monitoring system
5. Workshop evaluation

Module 4. Evaluation in Agricultural Research Management

This module presents concepts, methods, and strategic issues related to evaluating agricultural research. Information is grouped into three sequences. The first provides a general framework for evaluation and defines the purpose, levels, and types of evaluation. This sequence also describes the present situation of agricultural research evaluation in Latin America and the Caribbean. Sequence two deals more specifically with evaluation methodology, including activities for designing and implementing evaluations. Data collection, analysis, and interpretation are examined within the framework of agricultural research evaluation. Finally, sequence three treats management and administrative aspects of evaluation in more detail, including techniques for communicating evaluation results. In addition to notes to trainers, this module contains 36 overhead transparencies, a 67-page students' workbook, and three exercises.

Duration

This module is designed to be presented in one day.

Sessions

1 Framework for evaluation (conceptual elements of evaluation, levels and uses of evaluation, objects of evaluation, types of evaluation, present situation of evaluation in the region, positive and negative aspects of evaluation) 2 Evaluation methodology (evaluation design, implementation of evaluation, conclusion, collecting information) 3 Relating to other institutional processes (dissemination of evaluation results, institutionalizing evaluation, conclusion, strategies for institutionalizing evaluation and for disseminating results) 4 Workshop evaluation

Miscellaneous Training Modules

Framework and Methodology for Assessing Training Needs and Organizational Constraints

This module presents the basic framework and methodology of an ISNAR-developed training needs and organizational constraints assessment (TNA) for management training only (It differs from the similarly titled module in the KARI-ISNAR series in that it does not assess needs in technical skills) TNA is an important first phase of the training process. It provides accurate information for the design of an effective training program, which can respond to the actual needs of the participants. The series of activities presented in the module facilitates participants' awareness of the skills they need to do the management aspects of their jobs, as well as the organizational constraints preventing them from performing better.

Although it was developed for use at NARO in Uganda, ISNAR hopes that the step-by-step action methodology will provide information and guidance to agricultural research managers, extension officers and trainers in other organizations, so that they can carry out similar exercises to improve the effectiveness of their management training programs.

This module contains 80 overhead transparencies, three handouts, and eight exercises. It can be used in conjunction with the TNA video.

Duration

The TNA described in the module is carried out in nine, one-and-one-half day workshops. Each workshop is attended by a small group of managers from different layers of the organization. There are two types of groups, core groups (program leaders, scientists, administrative professional staff, technicians, and administrative support staff) and resource groups (top management, extension officers, and trainers). The workshops present the TNA framework and methodology tailored to the needs of the specific audience.

Sessions

1 Introduction 2 The analytical framework of agricultural research management and the concept of institutional development 3 Jobs, duties, and task analysis 4 Review of job descriptions 5 Identification of requirements 6 Identification of gaps 7 Setting priorities based on TNA results 8 Identification of constraints within the organization 9 Closure

INFORM: A Management Information System for Agricultural Research

Lack of good information can be a major impediment to effective management of research. Managers need to know exactly what experiments their scientists are doing, with which facilities and at what cost. Without this information, managers cannot perform, or improve, essential functions such as planning, programming, monitoring, and evaluation. To help NARS address their needs for better information and to improve information use for planning and policy setting, ISNAR has developed a management information system called INFORM—*IN*formation for agricultural *Re*search *Man*agers.

This module introduces key concepts of management information systems. It then guides participants step-by-step through the process of adapting and implementing INFORM in their own research institute.

In addition to notes to trainers, the module contains 168 overhead transparencies, 65 handouts, and 14 tasks in a separate taskbook, and the Guidelines for the Practitioner of INFORM (ISNAR publication). Module 482 pages, taskbook 74 pages and guidelines, 218 pages.

Duration

The workshop is planned for 10 days.

Sessions

1 Introduction to Management Information Systems 2 What is a database? What is Reflex? 3 Introduction to the Computer and the Reflex software 4 Using the human resource database as a management tool 5 Sources of information for a human resource database 6 Setting up the human resource database 7 Producing two key human resource reports 8 Information requirements for the research activity database 9 Producing two key research activity reports 10 The Tiny Agricultural Research Institute 11 Error trapping and correction 12 Project budgeting 13 Integrating project, personnel and financial information 14 Identifying errors between the databases 15 The SPICE research institute 16 Making cross tabs 17 Setting up reports 18 Making pie and bar charts 19 Planning, monitoring, and evaluation 20 Cleaning data 21 Searching for keywords and making keyword reports 22 Using INFORM as a management tool 23 Using INFORM to obtain human resource information 24 Developing outputs for the institute's report to the minister 25 Implementing INFORM in a NARS 26 Demonstration of INFORM to the station directors 27 Local implementation issues 28 Management issues 29 Post-workshop action planning

Managing Links with Technology Users: The Technology Triangle

Establishing and managing effective links with technology users is a key responsibility of senior research managers. This module focuses on research organizations' need to link with technology users, common problems encountered in forging these links, and strategies and mechanisms managers can use for strengthening links. Emphasis is given to managing the links between research and farmers and research and technology transfer agents, since these links are under the direct control of the research manager. The third crucial link—that between farmers and technology transfer—is covered peripherally, since it is not the immediate responsibility of the research manager. Emphasis is also given to forging links with resource-poor farmers. Here, the task is more daunting than with other groups, and the need is the greatest.

In addition to notes to trainers, this module contains 89 overhead transparencies, 22 handouts, and 10 exercises.

Duration

This workshop is planned for two and a half days.

Sessions

1 Introduction to the module 2 Forging links with technology users 3 Bringing the users' voice into research planning and technology design: the managers' job 4 Managing links with users: a conceptual framework 5 Managing links with users: a practicum 6 Workshop evaluation and participant action planning approach (PAPA)

Forthcoming Modules

Gestion des ressources humaines et communication

Novembre 1995

Nul n'ignore que les ressources humaines constituent un atout fondamental pour un programme de recherche, aucun programme ne saurait atteindre ses objectifs en l'absence de ressources humaines appropriées. La gestion du personnel affecté à un programme de recherche est une responsabilité cruciale qui incombe au chef du programme. Celui-ci est, dans la plupart des organismes de recherche, le responsable au premier niveau, c'est-à-dire qu'il (ou elle) est chargé(e) de superviser les activités au jour le jour du personnel travaillant au sein de son programme. En cette qualité, le chef de programme est le premier concerné dans la mise en application de la politique de gestion.

Le présent atelier de formation s'adresse à ces responsables. Ils occupent des postes similaires au sein de différentes organisations et ont des titres divers tels que chef de programme, coordinateur de programme, responsable de programme, chef de programme national, chef de programme de recherche, chef de programme de recherche sur un produit, chef de programme de recherche sur les systèmes agraires, coordinateur de centre ou de station de recherche. Ces responsables sont investis de fonctions similaires, sinon totalement identiques.

Chargés de la supervision au jour le jour, les individus occupant les fonctions de chef de programme doivent être en mesure d'agir sur le comportement, les résultats et les conditions de travail des agents affectés à leur programme. Il leur faut, à cette fin, posséder des connaissances théoriques et pratiques dans beaucoup de domaines. Dans le cadre du présent programme de formation, nous avons sélectionné des connaissances et savoir-faire relevant de trois domaines que ces responsables pourront mettre en application dans la gestion de leur personnel.

Le premier est l'aptitude à clarifier et expliciter leurs responsabilités au sein d'un institut national de recherche agricole, notamment en ce qui concerne la gestion et le développement des ressources humaines de leur programme. Le deuxième domaine est l'évaluation des performances du personnel du programme et plus particulièrement des chercheurs. Bien que certains organismes assignent officiellement la responsabilité de l'évaluation des performances du personnel à un responsable situé à un autre niveau, le responsable au premier niveau est souvent le mieux placé pour effectuer cette évaluation et se servir des résultats de celle-ci afin d'agir sur le comportement, le rendement et les conditions de travail des chercheurs. Le

troisième domaine concerne les connaissances et capacités en matière de communication. Nous considérerons ici les aspects dont un chef de programme peut se servir pour sélectionner, spécifier et formuler les objectifs, le contenu, les cibles et les moyens de communiquer avec le personnel de son programme.

Durée de l'atelier

L'atelier se déroulera sur une période de trois jours.

Thèmes traités

1 Portée et limites de la mission du chef de programme 2 Les fonctions du chef de programme - une grille modèle 3 Application pratique du modèle dans un institut francophone de recherche 4 Elaboration d'une description générique par les participants des missions et fonctions du chef de programme 5 Applications de l'évaluation des performances du personnel 6 Rôle du chef de programme dans l'évaluation du personnel 7 Mesure des performances du personnel par les résultats 8 Mesure des performances du personnel par les comportements 9 Récompenses pour la performance 10 L'importance des communications du chef de programme 11 Objectifs, publics, contenus et supports des communications 12 Organisation des communications internes/externes du chef de programme 13 Elaboration d'un plan de communication propre à chaque participant

La Formulation de Programmes de Recherche; la Planification, le Suivi et l'évaluation; la Gestion Financière

En se concentrant sur les thèmes principaux de l'atelier, les participants apprendront à exécuter les tâches suivantes.

La formulation de programmes de recherche

- a Définir le lien entre d'une part, la programmation à long terme et d'autre part, la planification et la formulation des programmes de recherche agricole
- b Effectuer une programmation à long terme en vue de résoudre, ou réduire, des problèmes rencontrés dans le contexte des programmes de recherche des participants
- c Exploiter l'information issue d'une évaluation sectorielle et identifier le type de renseignements devant faire partie de cette information
- d Définir les objectifs et les stratégies de recherche et transformer ceux-ci en projets clairs et bien définis

La planification, le suivi et l'évaluation

Les participants réfléchiront sur les sujets suivants

- a L'analyse de la gestion des projets de recherche et le déroulement du projet dans le contexte d'un institut de recherche
- b La planification, le suivi et l'évaluation des projets exécutés au sein des centres/instituts propres des participants
- c La formulation de projets qui correspondent bien aux objectifs (à l'aide d'un cadre logique)
- d L'élaboration d'une nouvelle proposition de recherche

La gestion financière

- a L'analyse de la gestion financière des procédures, des rôles et des usages
- b L'utilisation du cycle de la planification financière et l'établissement du rapport existant entre ce cycle et la gestion financière
- c Le suivi et l'évaluation de la gestion financière
- d La formulation de plans d'action pour institutionnaliser la gestion financière au sein des SNRA

Part II: A Selection of Audiovisual Training Materials

Materials listed in this section are video cassettes or presentations supported by audio cassettes

Training Needs Assessment (TNA) Framework and Methodology in NARO, Uganda

This video cassette illustrates step-by-step the framework and methodology of the training needs assessment (TNA) carried out at the National Agricultural Research Organization (NARO) in Uganda, 12-18 September 1994 (VHS-PAL format)

This video should be used in combination with the module

Duration

The video is 14 minutes

Beyond Mendel's Garden: Biotechnology in Agriculture

By Gabrielle J Persley

This audiovisual presentation costs US \$125

This audiovisual production was developed as an introduction to biotechnology in agriculture, particularly to the issues associated with the application of biotechnology in developing countries. It is intended primarily for national agricultural policymakers and agricultural research managers. The intention is to provide these key actors with some basic information on biotechnology and also to indicate where they might find additional information. The complete presentation package includes two cassette/reel tapes, 55 slides, a biotechnology flyer, *Biotechnology in Agriculture Opportunities for International Development*, a booklet containing the script for the presentation, supplementary reading material, order forms, and evaluation forms.

Duration

About 40 minutes

Forthcoming Video

Video on the Training Needs Assessment (TNA) Framework and Methodology in KARI, Kenya

This video cassette will illustrate step-by-step the framework and methodology of the training needs assessment (TNA) carried out at the Kenya Agricultural Research Institute (KARI) in Kenya. This video should be used in combination with the module.

Duration

The video will be (approximately) 15 minutes.