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STRENGTHENING THE MANAGEMENT OF AGRICULTURAL RESEARCH IN AFRICA:
A STAFF DEVELOPMENT APPROACH (698-0445)

INTERNATIONAL SERVICE FOR NATIONAL AGRICULTURAL RESEARCH (ISNAR)

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MID-PROJECT EVALUATION REPORT

Phase I: Program Evaluation

Phase II: Financial and Project Management Evaluation

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Although a Team Leader was designated, the report is clearly a product of a team effort. An initial draft of the report was sent to Professor Williams in Nigeria, Barbara Wyckoff at AID and to Hunt Hobbs in The Hague (ISNAR). All read the draft and communicated their comments and suggestions which have been incorporated into the final report. The degree of usefulness of the report to AID, CDA, ISNAR and to other individuals and institutions involved in agricultural research management can be credited to the full cooperation, effort and substantive input of all team members.

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EXECUTIVE SUMMARY

I. INTRODUCTION

In 1980 an international task force recommended to the Consultative Group on International Agricultural Research (CGIAR) that an organization be established "for the purpose of assisting governments of developing countries to strengthen their agricultural research." ^{1/} Thus ISNAR, the youngest of the 13 centers in the CGIAR network, established its headquarters in The Hague, Netherlands, in September 1980.

As a member of CGIAR, ISNAR receives core funding from a variety of sources, including the Science and Technology Bureau of AID, amounting to a total of approximately 3.0 million dollars in CY 1983. ISNAR also receives funding for special projects awarded on the basis of proposals submitted.

In June 1982, ISNAR submitted a 3-year proposal to the member countries of the Cooperation for Development (CDA) Technical Committee on agricultural research. ^{2/} The project purpose is to strengthen agricultural research in Africa through improving the management skills of research directors and scientists. Both the United States (AID) and Great Britain (Overseas Development Agency - ODA) responded to ISNAR's request, and ISNAR's proposal became a CDA-supported activity. As a CDA activity, status reports are given at the semi-annual CDA technical committee meetings.

A secondary purpose of this project is to implement a long-term management training capacity for agricultural research in Africa, and it was felt that the OAU/Scientific Technical and Research Commission (STRC) should be called upon to provide guidance and information concerning possible collaborating institutions within Africa. The OAU/STRC is also kept informed of progress under this project through ISNAR's presentations at the CDA technical committee for agricultural research meetings.

II. PROJECT DESCRIPTION

As described in the document titled "Strengthening the Management of Agricultural Research in Africa: A Staff Development Proposal" (Attachment A), the ISNAR project has the following three primary components:

- (1) a field study, comprised of 4-5 country studies, to determine specific management needs of personnel involved in national agricultural research, including an evaluation of the current strengths and weaknesses in management, (1982-1984);
- (2) the development of 10 case studies with teaching notes, as well as other training tools (e.g., training modules), for use in workshops, (2 in 1982, 5 in 1983, 3 in 1984); and

- (3) to develop and conduct 9, one-week management training workshops, (1 trial in 1982, 4 in 1983, 4 in 1984).

In addition, ISNAR will maintain contact with participants (research directors and scientists), consider inviting selected participants back for a second workshop, and encourage contact and communication among African agricultural research managers and scientists.

The fourth component is to build a base for a long-term management training capacity for agricultural research within Africa by collaborating with African management training institutions and by involving African professionals in all components of the project. By conducting workshops jointly with African management training institutions, ISNAR will provide assistance with program orientation, materials preparation, course content, teaching materials and the identification of external resources.

III. OBJECTIVE OF MID-PROJECT EVALUATION

This evaluation was conducted twenty-three months after the grant was signed in September 1982. However, due to the fact that A.I.D.'s determination that ISNAR's financial system was properly accountable was not made until May 1983, project activities did not begin in force until June 1983. ISNAR did begin the country surveys earlier using existing ISNAR core funding.

It is important to note that this is an implementation evaluation, not an impact evaluation. Therefore, the primary objective is to assess ISNAR's progress and effectiveness in achieving the project outputs as agreed to in the grant. The team believes, however, that the final evaluation should assess, to the extent possible, the impact of: (1) the training program on the participants' management skills; and (2) improved management skills on the efficiency and effectiveness of agricultural research programs. Indicators reflecting improved management and increased efficiency and effectiveness of agricultural research programs need to be formulated and agreed upon by ISNAR and AID. It may then be possible to explore these indicators by interviewing alumni from ISNAR's previous workshops.

The basic objectives of the mid-project evaluation are set forth in the "Statement of Work for the Mid-Project Evaluation" (Attachment B). In summary the objectives are as follows:

1. Evaluate ISNAR's approach in achieving the project purpose;
2. Evaluate ISNAR's results and progress in achieving the project outputs;

3. Assess ISNAR's effectiveness in conducting the workshop, particularly the relationship between training methodology, curriculum, and learner performance and satisfaction;
4. Assess ISNAR's effectiveness in assisting in the further development of the training capacity of the cooperating institution;
5. Examine the relationship between the improvement of agricultural research management and the dissemination of research results to small farm holders;
6. Review reporting procedures, funding status and financial management in terms of accountability and compliance with AID policy and procedures;
7. Evaluate the need for a project assistance completion date extension;
8. Review efficiency of project management; and
9. Make recommendations to AID concerning continuation, modification or discontinuation of AID's support to ISNAR.

At the beginning of the study, these were the basic guidelines by which the evaluation team undertook its work. As the team worked together, it became apparent that some modification of the guidelines was in order. The major modification was the setting aside of objective number five. Although a relationship between improved management of agricultural research and dissemination of results to farmers may exist, it was decided that there was no effective way, given the limitations of this evaluation, to address that question. However, this could be addressed as part of an impact evaluation.

IV. THE EVALUATION PROCESS

In order to complete the diverse objectives of the evaluation, the evaluation was divided into two phases: Phase I - Program Evaluation; and Phase II - Financial and Project Management Evaluation. While each team is comprised of different members, the AID project manager worked with both teams in an effort to provide continuity.

Phase I

The Phase I team attended the final week of the joint ISNAR/Mananga Agricultural Research Center (MAMC) workshop in Swaziland. Discussion and interviews were held with participants and ISNAR and MAMC staff members. The country studies, case studies and materials used in the workshop were reviewed. As the team was unable to contact participants or staff from the previous workshop (July, 1983) at the Eastern and Southern Africa Management Institute (ESAMI), conclusions are based primarily on the MAMC workshop and on discussions with the staff.

Phase II

The Phase II team held extensive discussions with ISNAR's staff in The Hague over three days. All expenditure reports, the accounting system and the management structure were reviewed.

V. MAJOR FINDINGS AND RECOMMENDATIONS

1. While the team agrees with ISNAR's decision to conduct three in-depth country studies, as opposed to the 4-5 as described in the grant agreement, the team recommends that any country level workshop in a country where ISNAR has no previous experience be preceded by a brief country survey for the purposes of identifying specific training needs and for mobilizing host-country involvement and support for the training effort. (pg. 10)
2. The team believes that AID was not adequately consulted or informed of the modifications in the field study and training components as described in the original program description. Therefore, the team recommends that ISNAR submit to AID a letter of justification for these modifications. Furthermore, a greater effort needs to be made to ensure that the appropriate consultation has taken place prior to future implementation of major changes in the grant agreement. (pg. 11)
3. Based on the participants' responses during the MAMC workshop, the team believes that the case study method of training is effective when combined with other methods throughout the workshop. Due to the fact that most participants are unlikely to have any exposure to this methodology, the team recommends that increased guidance in how to use the case study as a learning tool be provided. In addition, it is recommended that ISNAR explore utilizing a "living" case study in the region where the training workshop is being held. This could involve interviews and visits to the characters and places in the case study. Beginning with a concrete case should facilitate the transition to the abstract cases. (pg. 16)
4. ISNAR used an extensive evaluation questionnaire which was completed by the participants at the end of the workshop. The team recommends that ISNAR consider using weekly evaluations as well as the final. In addition to gaining reactions closer to the actual time of the presentation, the weekly evaluation can be used as a tool for guiding the trainers in modifying their program for the remainder of the course. The final evaluation can then be made shorter and focus on the overall impact of a unit of material, or a module, and on the training program as a whole. (pg. 16)

5. ISNAR has sent a follow-up evaluation questionnaire to the twenty-six alumni of the workshop held at ESAMI, with eight (31%) responses. ISNAR will repeat this process with all alumni of their workshops as a basis for the impact assessment. In an effort to keep research managers involved in and up-to-date on developments in management, ISNAR is also considering developing a newsletter to be distributed to all former participants on a periodic basis. The team recommends that ISNAR proceed with the newsletter concept, in addition to other follow-up activities. (pg. 16)
6. In any Phase II proposal that ISNAR may submit to the CTA donors, a clear outline of short and long-term objectives should be included. In the case of the long-term objective, that of building an African agricultural research management capability, the team suggests cooperation with African training institutions and a staff development program, perhaps including fellowships. It should be clear that ISNAR will not be able to attain the long-term objective within a five year grant, and that the short-term objectives leading to the building of a base for this long-term capability should be established. (pg. 19)
7. In an effort towards greater participation of Africans in all components of the project, the team recommends continued but closer collaboration between ISNAR and African institutions such as the OAU/STRC and The Association for the Advancement of Agricultural Sciences in Africa (AAASA) to identify qualified African personnel for short and longer-term service through ISNAR. Furthermore, the team recommends that a copy of the quarterly progress report which ISNAR submits to AID be sent to the OAU/STRC. (pg. 21)
8. The following recommendations were made by the Phase II team concerning financial management:
 - (A) Cash advance procedures have been deficient from both ISNAR and AID perspectives. Submission of an additional Request for Advance by ISNAR is recommended to "catch up" on the cash flow. (pg. 23)
 - (B) It is recommended that the separate bank account be utilized for all direct project payments in the future (assuming that an adequate cash flow is established). (pg. 23)
 - (C) Quarterly reporting procedures appear adequate with the exception of the report for the period April - June 1983 which should be submitted to AID/Washington FM/PAD as soon as possible. (pg. 24)
 - (D) It is recommended that ISNAR submit details and justification of the apparently excessive consultancy costs. (pg. 24)

9. The team notes that a "project document" containing "a precise agenda and schedule for the materials preparation and workshop activities", as described in the program description, has not yet been completed. Given the growing number of activities under this project, the team recommends that this schedule of implementation be completed for the remaining seven months, or to the completion of the grant. (pg. 25)
10. Since June 1983 ISNAR, with some modifications, has been able to make up lost time and is now on schedule. It appears that adequate funds are available to complete the project activities currently committed and tentatively planned as follows:
 - (1) training seminars in Cameroon, September 1984, and Mali, February 1985;
 - (2) case studies (final three or four to exceed by one or two the planned ten); and
 - (3) the additional training seminar tentatively planned spring 1985 in Kenya.

An extension of the Project Assistance Complete Date (PACD) past May 31, 1985 is not recommended at this time. However, in the event the training program planned for Kenya cannot be implemented prior to the PACD a reasonable extension, at no additional cost, would be recommended. Further, it is recommended that a Terminal Disbursement Date be established at 90 days after the PACD. (pg. 27)

VI. CONCLUSION

The team concludes that ISNAR is on schedule in achieving project outputs, with some modifications. Furthermore, project outputs have been well executed and are beneficial contributions to the field of agricultural research management training. Based on participant and staff responses, the training component has provided relevant and effective skills and management perspectives. The team recommends that AID and other CDA members continue support of the ISNAR project and, pending the results of a final impact evaluation, consider additional funding in the future.

PHASE I

Program Evaluation

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THE EVALUATION

I. ISNAR's APPROACH TO ACHIEVING THE PROJECT PURPOSE

Relatively little work has been done previously in the field of agricultural research management in Africa. ISNAR's approach to strengthening the management skills of research directors and scientists is to first define, through country studies, the management tasks involved in agricultural research, and then to identify specific problems and skills needed as viewed by the managers themselves. The regional training component then provides the necessary training to improve these skills, as well as the opportunity for managers of various nationalities to meet and share problems and ideas.

Each training workshop presents a combination of concrete tools and skills, as well as the more abstract concepts and perspectives of management. These are presented through lectures, small group discussions and case studies. ISNAR believes that the case study method of training provides the opportunity for participants to be exposed to situations similar to their own, and to then develop possible solutions, benefiting from the experiences of the group. Participants learn the concepts of management and how to determine which management tools are applicable.

The evaluation team believes that this approach is valid and effective on an individual level. Often, however, causes of poor management are far broader than the individual alone. The country studies, particularly those for Sudan and Cameroon, recognize that management training must address the overall agricultural research system to make any training effective. As stated in the Sudan study, "a system-wide perspective facilitates distinguishing between what training can and cannot be expected to do within reasonable limits" (p. 8). Out of this "system" perspective came a recommendation that both "management training" and complementary "management actions" be included in the management improvement program. The study emphasized the importance of "building a climate for change". Applied on a country-level, a "system" perspective for the implementation of training appears to be essential for the full impact of the training effort to be felt. The team agrees with this perspective and supports the initiation of country level training programs which use a "system" approach.

II. ISNAR's RESULTS AND PROGRESS IN ACHIEVING PROJECT OUTPUTS

ISNAR has made greater progress toward some of the outputs established in the project proposal than others. Tables 1-5 summarize the outputs of ISNAR which have resulted from the grant through August 31, 1984.

Following is a discussion of the outputs, as well as a comparison between planned outputs of the original agreement and those which actually occurred and are anticipated.

Country Studies

As Table 1 indicates, ISNAR has completed three country studies (Zimbabwe, Sudan and Cameroon) and is nearing completion of a summary report based on the three studies. The original agreement called for 4-5 country studies. However, it appears that ISNAR decided early on that only three country studies would be done. This is clearly indicated in the First Technical Report (p. 3) which outlines the planned work for the ensuing quarters: "Fieldwork for the remaining two country studies (in Cameroon and Sudan) will be completed during October/November (1984)." No mention is made of either a fourth or fifth country study. The decision was apparently made without prior consultation with AID.

ISNAR's staff explained the reasoning behind the change as a decision to use the available resources for fewer but more in-depth studies instead of for a larger number of more superficial studies.

Underlying the decision to carry out more in-depth studies was the judgment by ISNAR that, although not a representative sample of all African countries in any statistical sense, the three countries selected represent a broad sampling of the management training needs for agricultural research in Africa.

The three countries are situated in very different ecological zones, have a different colonial background and administrative traditions, and possess research systems that differ substantially in their history, structure, size, and staffing. Together, they provide a unique opportunity to examine management problems in agricultural research. 3/

ISNAR's staff believed that the three country studies have provided adequate information to begin effectively the crucial task of management training for agricultural research.

As the Cameroon country study indicates, the three countries represent a range of diverse conditions in Africa. Yet, at the same time, the three studies identify a number of management tasks common to the African agricultural research environment. The Zimbabwe and Cameroon lists of managerial tasks are nearly identical (p. 11 and p. 3, respectively): research programming (strategic planning and evaluation, programming and budgeting in the Cameroon study); financial management; personnel management; station management (management of physical resources in the Cameroon study); and information management. In the Sudan study these basic elements have been broken down into a larger number of functional tasks (p. 9).

The studies also indicate that, although agricultural research managers may be competent in their fields of research, few have received any type of management training. Many research managers not only lack understanding of the breadth of managerial functions in general, but also often lack a clear understanding of the managerial responsibilities of their own jobs. Many even lack job descriptions. Managers of agricultural research often feel a sense of isolation, even from peers in the research system. The studies indicate that there is a need for management training within virtually all functional areas of management. The team believes that ISNAR has illustrated completely the major management tasks, and has confirmed and identified training needs from the manager's perspective within these tasks.

These are some of the common management tasks and needs upon which ISNAR has developed their training program. Table 7 identifies the major subject areas covered in the MAMC workshop. It indicates the broad range of topics and methods used to address each of the management tasks.

In the judgment of the evaluation team, in light of the three country studies done and ISNAR's collective experience throughout Africa, conducting additional country studies is unlikely to have resulted in a major modification of the basic elements identified in the three studies as key areas for the design of training programs. ISNAR's decision to move ahead with the training component was probably a good decision. What remains at issue is the manner in which the decision was made.

The foregoing does not imply that country studies are unimportant. On the contrary, when a major training effort is being planned for a country, a thorough study of the specific research system can serve two important purposes: (1) to increase knowledge of the specific needs of the country in order to make the training more "relevant"; and (2) to create an atmosphere of awareness and understanding of the value of management training within the total agricultural research system.

A "systems" perspective as described in ISNAR's approach, recognizes that management training workshops without management actions will be ineffective. A critical step in the training process is the mobilization of support and commitment to the overall training effort. Without such support, providing training workshops to isolated individuals will do more to raise the frustration level of individuals than to improve management of agricultural research.

Two of the three country studies have stimulated follow-up activities. In Cameroon, a two-week workshop is scheduled for September 1984. Built into the Sudan study is the offer of ISNAR's further assistance in management improvement for agricultural research. Further participation by ISNAR in training in Sudan is expected.

Recommendation:

The team recommends that whenever ISNAR decides to undertake a major training effort in an African country in which it has not worked extensively before, ISNAR should do a study of the country's needs for management training as the initial step in the training process. Such studies should have two goals: (1) identification of the specific management training needs for agricultural research; (2) identification of potential local faculty for future activities; and (3) mobilization of support for the training effort that will make the implementation of training possible. This latter goal may in itself result in less formalized on-the-job training exercises for key policy and program staff.

Case Studies

Table 2 indicates that eight case studies have been completed. ISNAR plans to write 3-4 additional case studies and to prepare teaching notes, as stipulated in the grant, by the end of the grant period, May 31, 1985. On the whole the case studies seem average, with the exception of some which are excellent. It is important to note that specific skills are needed to write case studies, including experience with using case studies as a training tool, and ISNAR should ensure that the appropriate staff is used.

Training Workshops

The number and structure of the workshops have been modified from what was stated in the original agreement. Originally, ISNAR planned nine one-week workshops. Based on participants' and instructors' comments on a two-week workshop held at the International Institute of Tropical Agriculture (IITA) in Ibadan, Nigeria in 1982, ISNAR determined that two weeks was a minimum time for a regional workshop to provide a minimum critical mass of management tools and perspectives in agricultural research management to effectively improve the management capabilities of research directors and scientists. The second workshop, which was held at ESAMI in July 1983, was two weeks long, and the workshop at MAMC was four weeks long. ISNAR has determined that a 3-4 week period is most appropriate for a regional workshop. These experiences have dictated the modifications made in the workshop component. (Table 4)

Response to the Modifications

ISNAR made application for the grant with the expectation that funds would be made available September 1, 1982. Funding did not become available until July 1983. As the First Technical Report indicates, "Work under the USAID-funded portion of the above project began on a small-scale in February, 1983 - even though actual funds were not received by ISNAR until July, 1983" (p. 1). This was one factor that slowed progress toward the overall objectives. In spite of the delay in funding, ISNAR has made substantial progress in fulfilling the requirements of the grant agreement.

Given the small amount of resources provided in the grant compared to the great needs for management training for agricultural research, there is probably no single "optimal" mix of country studies, case studies and workshop sessions. There are certainly no objective criteria for determining what the mix might be. Therefore, the team does not judge the modifications to be a major obstacle to the fulfillment of the major terms of the agreement.

Regardless of the justifications which may be made for the modifications to the agreement between ISNAR and AID, the modifications ought to have taken place in consultation with AID. At the same time, AID could have clarified the issue at an earlier stage when the First Technical Report was received (approximately October, 1983) so that whatever modifications to the grant were needed could be made on a collaborative basis.

Recommendation:

The team recommends that greater efforts be taken to ensure that the appropriate consultation has taken place prior to the implementation of major changes in the grant provisions. In addition, the team recommends that ISNAR submit a formal justification to AID for the modifications in the field study and training components. Similarly, AID may want to modify the project description as outlined in the grant agreement accordingly. (See Attachment C: Draft Amendment to Program Description)

III. ASSESS ISNAR'S EFFECTIVENESS IN CONDUCTING THE WORKSHOP

The phase I team attended the final week of the four-week workshop conducted jointly with the Mananga Agricultural Research Center (MAMC) in Swaziland. The team interviewed participants and staff at the workshop. While it is possible to assess the structure and effectiveness of the workshop in the short-term, based on observations and participants' comments, any assessment of effectiveness in the long-term is severely limited given the constraints of the evaluation. The team did, however, review eight (31%) follow-on questionnaires which had been completed by alumni from the ESAMI workshop held in July 1983. Hopefully, additional questionnaires will be received prior to the final evaluation. However, those which were returned do represent a better than average sample of mail questionnaires in general.

Participant Responses to the ESAMI Follow-up Questionnaires

The respondents from the ESAMI workshop completed the questionnaires one year after the workshop. Their overall response to the workshop was quite positive. On a scale ranging from "excellent" to "poor", almost all rated the workshop as "very good" (7). One rated the workshop between "very good" and "average." All respondents said they would recommend the course to a colleague (6 "definitely yes" and 1 "yes"). All indicated they would be willing to take a follow-up workshop which built upon the previous course concepts.

Asked to list the single greatest benefit of the workshop, half of the respondents gave responses which suggested they thought they had improved in their ability to make critical assessments, study or scrutinize situations or research problems in order to solve problems or make decisions. Other major benefits cited included a better understanding of the human element of management, motivation, or improved ability to communicate with both superiors and subordinates (6), exposure to ISNAR or international research organizations (2), increased confidence in problem solving abilities (2), awareness of expectations, and risks of farmers and linking research and extension (3), and exposure to accounting and financial management techniques.

All but one participant indicates that he had made use of something from the workshop or had at least discussed some of the learnings. Interpersonal relationships (working as a team, encouraging discussion, encouraging and understanding individuals) were mentioned most often as examples of how training was applied. Other major applications included prioritizing (3), improving communications techniques (3) and use of organizational skills (3). Major learnings discussed with staff included items related to human relations, communications and discussions (4), research applications, linking research with extension or farmer expectations (3), organization (3), and budget and financial management (3).

The major changes recommended for any follow-up workshop was to increase the length (4), to have fewer case studies (3), and to have more practical exercises or field trips (3). One suggested a better balance was needed in the course; others specifically suggested more discussion and lecture and more time for participants to share their knowledge.

A large variety of topics were suggested (15 different ones) for a follow-up workshop. Some items mentioned more than once were research/extension links (2) and topics related to financial management or economic analysis (2). Two persons also suggested following up the previous workshop specifically in light of the experience gained by the participants in the intervening period. One even suggested that returning participants make a report on their subsequent experience in relationship to the workshop.

The response to the participants in the questionnaires clearly indicate that the training experience was positive. They have indicated both general and specific ways in which they have used what they have learned. Based on their responses, it appears that the ISNAR project has improved management skills of research directors and scientists. The extent to which this perception can be further verified will depend on receiving additional questionnaires and the planning of some form of impact evaluation by the final evaluation team.

Participants at the ISNAR/MAMC Workshop

The ISNAR/MAMC workshop was attended by 18 participants from 8 countries in eastern and southern Africa. Seventeen of the participants had completed graduate studies (11 M.Sc and 6 Ph.D.). Of the other two, one held a B.Sc. degree and one a post-graduate diploma. Almost one-half received their highest degree in the United States. About one-fifth were trained in the United Kingdom. Two received their highest degrees in African institutions, and one each was trained in Australia and the USSR. All but two received post-graduate degrees within the last eleven years; eight since 1980. Fifteen had some administrative responsibilities with three or more subordinates. Fourteen were responsible for both funds and budget planning. Two were in charge of budget planning only. (See Attachment D: Participant Profiles)

In response to the participants, as described in the above profile, the workshop was of a high academic standing and was very demanding. The emphasis on human relations, financial planning and management tools, and general management perspectives, was very appropriate for these participants. Throughout the workshop, the staff was responsive to the participants' needs and interests, often modifying the schedule and even adding sessions at the participants' request.

Participant and Staff Interviews

The team agreed to conduct as a group interviews of participants. Given the busy schedule of week four of the workshop, the fact that ISNAR was preparing a detailed evaluation questionnaire for the end of the course and because the team's time together was limited ^{4/}, the team decided to conduct interviews with the participants rather than to administer a written questionnaire.

Each team member contributed questions, and it was mutually agreed that Dr. Williams would be the primary initiator of the interviews. A list of participants provided by the workshop staff was randomly divided into three groups of six ^{5/}. All participants were given opportunity to reply to all the questions asked and were given the chance to ask questions and to make additional comments on their own. The dialogical atmosphere created by Dr. Williams seemed to make all participants and team members free to participate in the discussion. In fact, although an hour was allotted for each interview, the actual interviews ranged in length from an hour and a quarter to two hours.

In addition to the interviews, informal discussions were conducted throughout the week with participants as the team shared meals in the dining room with participants and chatted informally on coffee breaks and outside class hours.

Similarly, the evaluation team met as a group with members of each of the two staffs who were available. Two sessions were held with ISNAR due to

the wider range of issues of the grant which were discussed. After all of the interviews were conducted, the evaluation team met and formulated a presentation to provide feedback to the two staffs.

Workshop Participant Response

Overall:

Overall the response of the participants to the workshop was quite positive, rating the course 4.6 overall. NOTE: All ratings are on a 1-5 scale, with 5.0 as the highest. Participants (82 percent) thought the length of the training was about right. One indicated he would "not have been able to attend a longer course" while another noted that it would have been "very difficult to cover these courses in less time."

Over half of the participants (54 percent) believed the courses contribution to their work will be "very good" (5.0) and 38 percent believed it was "good". The benefits which the participants indicated they had gained from the workshop included those which were goals of the training: to be "a more effective manager;" and an awareness of research as "client-centered," with the farmer as the client.

Workshop Content and Training Methodology:

A variety of styles of presentation were used during the workshop, including lectures, lectures in conjunction with small group work, case study presentations, simulation exercises, films, and video taping of oral presentations of participants. There was no pattern which indicated that any particular method of presentation was vastly superior to others. Tables 7 and 8 give a breakdown of the basic topics covered in the workshop and the methods used during the training course. In addition to the effective overall management of the course, case studies and small group work were cited among the strengths of the course.

Topics covered under Management Tools for Agricultural Research (4.9) and the Human Side of Research Management (4.8) were rated most highly in their relevance to professional work. The management tools material was rated in between the other two (ranging from 4.0 to 4.5). In general, the case studies (4.2) and the topics covered under the Perspectives on Research Management (4.1) were rated somewhat lower (ranging from 3.1 to 4.5) in terms of their relevance to the participant's professional work. The materials on economics for research managers, which were presented by lecture, were rated lower (3.3) by participants.

In discussing the course materials with the participants, the team came to the conclusions that the participants rated the management tools and the human side of management most highly as they were able to relate these concretely to their work. In short, many "answers" were provided. On the other hand, the case studies and perspectives were more abstract and did not seem relevant to the participants in the short term, a possible explanation for their lower rating. The team believes, however,

that when building a base for improved management both the concrete and abstract are necessary and therefore supports the inclusion of both in the curriculum.

The informal comments of the participants indicate that more attention needs to be given to the use of case studies and the case study method in the workshops. Their responses indicate that more time may be needed in discussing cases. For example, some participants also commented that they "want to know the answers and tutors' views." Others suggested a "more comprehensive wrap-up by (the) professor" was desirable. Other participants thought there were too many cases and not enough time to read the cases. Since for many, if not the most, the case study was new, it is not surprising that they may have felt less comfortable with that method when compared to the lecture and lecture/small group discussion methods of presentations.

At the same time, participants cited a number of new perspectives gained through the case studies, including: the importance of "small farmers' (user/clients) needs in formulating a programme"; matching goals to resources; the importance of looking at the situation from all facets; and relating goals and objectives to constraints.

To find the extent to which the case method has or has not been effective, evaluators must go beyond what participants think they have learned at the end of a workshop to examine on-the-job performance at a later time. If training for agricultural research management is to build upon its beginnings in Africa, effective follow-up contact and evaluation are needed.

It is difficult to attribute specific responses to either individuals, type of materials presented or method of presentation. The three faculty rated most highly made a wide variety of types of presentations, ranging from lectures to case studies and including lectures combined with small group work. And the topics covered by two of these individuals ranged as widely as possible -- from management tools for agricultural research to the human side of agricultural research.

The responses of the participants suggest that training methods should be evaluated in terms of the purpose which is to be accomplished. When used judiciously, even the much-maligned lecture method may be used effectively. The wide range of methods used in the workshop at MAMC increased participant satisfaction.

Structure:

Half of the participants felt that too much time was allotted to case studies while most of the other half (42 percent) felt that the time was about right, even though less than 14 percent of the sessions were devoted to case studies. In contrast, the vast majority (85 percent) felt that the time allotted to management tools was too little, even though almost one-fourth of the workshop time was devoted to management

tools. Most participants (77 percent) thought that the number of sessions (over 21 percent) devoted to the human side of research management was about right. The team believes that the above reflects the higher value, based on short term utility, the participants placed on the management tools over more abstract concepts.

There were also a few comments in the evaluation summary related to the heavy schedule or lack of time. Ironically, the evaluation team learned that the participants had actually requested additional night sessions during the third week. These were developed and presented in four sessions in addition to the regular schedule.

Recommendations:

In light of the above discussion, the team makes the following recommendations:

1. Adequate time should be given in the workshop for participants to become more familiar with ways of approaching the case study method. Increased guidance in the use of the case study method does not mean that the goal is to help participants to find the "right answer" but to enable participants to gain greater facility in the use of the method as early in the course as possible, and to develop their thought processes in problem solving situations.
2. Explore the possibility of utilizing a "living" case study in the region where the training workshop is being held. A living case study might bring the method itself to life. Beginning with a concrete case should facilitate the transition to the abstract cases.
3. Weekly evaluations should be considered. In addition to gaining reactions closer to the actual time of the presentations, the weekly evaluation may be used as a tool for guiding the workshop leaders in modifying their programs for the remainder of the course. This is not possible with just a final evaluation. The final evaluation can be made shorter and be focused on the overall impact of a unit of material or a module.
4. In an effort to keep research managers involved in and up-to date on developments in management, ISNAR is also considering developing a newsletter to be distributed to all former participants on a periodic basis. This is within the scope of the original grant agreement, and adequate funds exists. The team recommends that ISNAR proceed with the newsletter concept, in addition to other follow-up activities.

IV. STRENGTHENING AFRICAN AGRICULTURAL RESEARCH MANAGEMENT TRAINING INSTITUTIONS

As stated in the program description (Attachment A) of the ISNAR grant, "an important secondary objective will be to implement a long-term

management training capacity for agricultural research in Africa" (page 7). Furthermore, "ISNAR expects to identify several management schools, agricultural colleges, and other institutions which have the capability and potential support for research management training, and with which it can cooperate over a period of several years. ISNAR's support for these institutions will include assistance with program orientation, materials preparation, course content, teaching methods, and the identification of external resources [both manpower and financial] (page 8). The case-writer would also...train African faculty in the art and science of case-writing." (page 14).

The selection of cooperating institutions followed a three-step process. After an initial library survey, several institutions were identified based on the following:

1. having a regional mandate;
2. having an organization mandate to support management training, particularly as it relates to agriculture; and
3. having expertise in agricultural management training.

While eight to ten institutions were contacted, four expressed interest:

The Eastern and Southern African Management Institute (ESAMI) in Tanzania;

The Mananga Agricultural Management Center (MAMC) in Swaziland;

The Ecole Superieure de Gestion des Enterprises (ESGE) in Senegal; and

The Pan African Institute for Development (PAID) in Cameroon.

These institutions were visited by ISNAR staff, and representatives from ESAMI and MAMC met with ISNAR in The Hague.

As of August 1984 ISNAR had collaborated in workshop presentations with two institutions: (1) ESAMI in Tanzania; and (2) MAMC in Swaziland 6/. Plans have been made to collaborate with PAID in the presentation of a national workshop in Cameroon (September 1984) and with ESGE during the Sahel Regional Workshop (February 1985) in Bamako.

The methodology used in implementing a long-term management training capacity within the two training institutions can be clasified into two categories:

- (1) learning through practical experience; and
- (2) learning through observation.

In the first category, both ISNAR and the host institution have a shared responsibility for presenting course materials at the first workshop of the series to be presented jointly. Greater reliance is placed on the host institution during the second workshop. It is expected that reliance on host institution staff for presentations will continue to increase in subsequent workshops, until the host institution has the capacity to conduct these workshops independently.

In the second category, each cooperating institution sends a staff member to one of the preceding workshops to observe and to make some presentations. (ESAMI sent one professor to an IITA seminar, and MAMC sent one professor to the ESAMI workshop.) The cooperating institution staff is also expected to observe ISNAR's sessions at their own workshop. (This rarely happened at ESAMI but occurred regularly at MAMC.) Similarly, in addition to making presentations, ISNAR staff have acted as observers and have provided technical feedback to the host-institution instructors.

According to comments by MAMC and ISNAR staff to the evaluation team, there have been numerous benefits gained from this approach, including the following:

1. a heightening of individual professional goals and expectations;
2. reduced professional isolation;
3. exposure to and incorporation of different teaching styles;
4. increased understanding of agricultural research management problems;
5. exposure to case studies and a reworking of MAMC's course materials; and
6. a positive contribution to the institutional culture at MAMC.

As shown by the above list, benefits were primarily felt at the instructor level, as opposed to the institutional level.

Assistance has not been provided in the following areas as outlined in the grant:

1. training African faculty in the art and science of case-writing;
2. identification of external resources; and
3. only minor impact in the orientation of the programs of the training institution.

While valuable benefits have been attained by the staff at MAMC (unfortunately the evaluation team was unable to speak with ESAMI staff),

the team has concluded that only minor steps have been made towards the stated long-term objective in the grant "to implement a long-term management training capacity for agricultural research in Africa." This conclusion is based on the following two factors:

1. that the majority of benefits experienced were at the individual instructor level; and
2. the particular characteristics of MAMC (100 percent expatriate staff and the rotating nature of this staff and program orientation determined by Commonwealth Development Corporation [CDC]).

Given the above discussions, however, the team supports and recommends strongly further work with MAMC if possible. As stated previously, the team concluded that the management capability of the participants was improved. This short-term objective has been, and can, continue to be achieved at ESAMI and MAMC. Furthermore, cooperation with ISNAR has improved MAMC's overall capacity to offer agricultural management training. While not a stated objective of this project, it is a step in the right direction toward the goal of improving agricultural production in Africa.

Recommendation:

While valuable, the team does not believe cooperation with MAMC, as MAMC is presently established, will lead to the long-term objective of establishing an African training capacity in the management of agricultural research. Therefore, the team makes the following recommendations:

1. CDA confirm its commitment to building an African agricultural research management training capability as part of its long term objectives;
2. short and long-term objectives be clarified and cooperating institutions be selected within this framework; and
3. A clear outline of short and long-term objectives be included in any phase II proposal that ISNAR may submit to the CDA donors. In the case of the long-term objective of building an African agricultural research management training capability, the team suggests cooperation with African training institutions, utilization of a staff development program and consideration of granting fellowships. These fellowships would provide qualified Africans with the opportunity to work with ISNAR staff over a period of a year. The anticipated result would be a pool of agricultural research management trainers, case-writers and consultants. It is clear that ISNAR will not be able to attain the long-term objective within a five-year grant, but that the short-term objectives leading to the building of a base for a long-term capability should be established. 8/

Participation of African Staff

Team members discussed at length with MAMC and ISNAR staff the challenge of strengthening African agricultural research management capacity in its various dimensions. ISNAR has the opportunity and challenge of identifying African personnel who are both qualified and available to take on assignments with ISNAR, as well as to locate institutions with which to collaborate in management training workshops. The following table represents the relative degree of participation by African staff in ISNAR activities conducted under the grant.

PARTICIPATION IN ISNAR GRANT ACTIVITIES
BY AFRICANS AND NON-AFRICAN STAFF

	Number		Staff		Percent African
	Activity	Persons	African	Non-African	
Country Studies	3	11	3	8	27%
Case Studies	8	4	1	3	25%
Workshops:					
ESAMI	1	6	3	3	50%
MAMC	1	8	1	7	12.5%
PAID/Cameroon	1	13	10	3	77%
Evaluation Team:					
Mid-term (Phases I and II)	1	4	1	3	25%

Concern has been expressed by a team member on behalf of the OAU/STRC about the lack of adequate participation by Africans as trainers and in course material preparation. The OAU/STRC feels that closer collaboration between ISNAR and African organizations such as OAU/STRC or AAASA, as stated in the program description, is more likely to lead to identification and greater involvement of suitable Africans trainers.

The data are displayed not because there is magic in numbers, but because they vividly illustrate the challenge which lies before ISNAR and all institutions concerned with strengthening African institutions and increasing the involvement and experience of Africans in management training for agricultural research in Africa.

Recommendation:

The team recommends continued but closer collaboration between ISNAR and African organizations such as the OAU/STRC and AAASA to identify qualified African personnel for short and long-term service through ISNAR.

PHASE II

Financial and Project Management Evaluation

Travis Rattan
Barbara Wyckoff

VI. REPORTING PROCEDURES, FUNDING-STATUS AND FINANCIAL MANAGEMENT

Project Funding

Under the terms of the Grant Agreement, dated September 30, 1982, and as modified March 18, 1983 AID funds would be used to provide technical support for strengthening the management of agricultural research in Africa. Under this CDA project managed by ISNAR, funding was planned as follows:

AID Grant	\$495,000
ODA (Great Britain)	144,000
ISNAR Contribution	<u>176,350</u>
Total-Active Donors	815,350
Upspecified donor	<u>123,350</u>
Original planned funding	<u>\$938,700</u>

The unspecified donor, for whatever reasons, was never identified and, therefore, no funds have been received from that source. At this point ISNAR does not intend to look further for a donor. The grant agreement does provide that, in the event "other donor" funds are not made available, ISNAR's contribution will be increased accordingly. It appears, however, that no additional funds will be required from ISNAR (or other donor) as shown in schedule of expenses through June 30, 1984, Table 9, and planned expenses, Table 10, for the remainder of the project ending may 31, 1985.

Recommendation

It appears that adequate AID, ODA and ISNAR funds are available to complete the activities planned for the remainder of the project and that an extension of the grant agreement is not necessary.

Cash Advance

There has been a serious cash flow problem throughout the life of this project. Apparently, the fault lies both with ISNAR and AID. The agreement contains a condition precedent restricting disbursements until AID determined that the ISNAR financial system was properly accountable. The determination was received from AID in May, 1983, some seven months into the project. ISNAR requested an advance May 20, 1983 that was deposited into ISNAR's account on July 7, 1983. Apparently, subsequent requests for advances were not properly prepared by ISNAR and/or were not properly processed by AID. There was also a mixup in the electronic system with ISNAR's bank which contributed to the delay in receiving funds. Two advance checks were received in July, 1984. However, even this has not fully corrected the cash flow problem. The schedule shown in Table 11 indicates the shortfall in the cash flow pattern.

Recommendation:

In order to get ISNAR back on sound financial basis for this project an off cycle request for an additional advance will be prepared at the end of August with the regularly scheduled quarterly report and advance to be submitted at the end of September, 1984.

Bank Account

According to the terms of the Grant Agreement as contained in the Standard Provisions, ISNAR was to establish a distinct bank account for AID funds. The purpose of the separate bank account is to avoid comingling AID funds with other funds. However, due to the long delay in receiving the initial advance of \$130,000 on July 7, 1983, ISNAR was forced to use its own general operating account funds for start-up of the project. Upon receipt of the advance, ISNAR transferred funds from the "AID account" to its own general operating account to "pay back" project expenses incurred and paid prior to the receipt of advances. This same procedure has continued throughout most of the period of the grant because of the delay in receiving advances.

Recommendation:

This problem was discussed with the ISNAR accountant who now fully understands the proper way to handle AID funds, but the lack of adequate cash flow has dictated otherwise. In order to regularize the cash problem a recommendation was made that an off-cycle request for an advance should be submitted at the end of August. If the request is properly processed by AID, and if the advance is received in a timely manner by the end of September, the problem should be rectified. It is recommended that the bank account then be utilized only for all direct project payments.

Accounting System

The following statement was made by ISNAR's auditing firm, Price Waterhouse Nederland, in an audit report issued March 9, 1984:

"We have examined the accompanying accounts for the year to December 31, 1983 of the 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 [CGIAR], Washington." 9/

The accounting system being used by ISNAR, as indicated above, follows OGIAR format. It appears to be very sophisticated and completely adequate to capture costs properly attributed to AID projects. Separate accounting codes have been established for AID project expenses and are used routinely to allocate costs.

Quarterly Reports

There was a misunderstanding in the preparation of the required financial quarterly reports as well as one report not being prepared at all. The proper format along with supporting data requirements was discussed with the ISNAR accountant.

Recommendation:

The missing report for the period April-June 1983 should be prepared and submitted in order to correct cumulative accountability of project funds.

Consultant Fees

In reviewing the actual costs for the seminars held at ESAMI and MAMC there were two similar items of expenses that require further explanation by ISNAR. Two consultants from Nairobi and the United States were contracted to prepare seminar materials and to actively participate in the workshops. We understand from discussions held with ISNAR officials that a package fee was negotiated to cover each consultant's time spent in preparing general material for the workshops as well as the time spent supervising and/or teaching the workshops. We were unable to make a detailed review of the time and effort spent by the consultants but it appears that the fees and other paid expenses in excess of \$10,000 and \$15,000 are quite lucrative and perhaps excessive.

Recommendation:

In the interest of all the parties concerned ISNAR should provide an explanation and justification of the fees paid to the two consultants.

VII. EFFICIENCY OF PROJECT MANAGEMENT

The CDA/AID project is managed within the Training and Conference Division of ISNAR. Within that division, Hunt Hobbs has primary implementation/supervision responsibilities of the workshop and case study components of the project. He spends approximately 60 percent of his time on the CDA project including the supervision of case writing, preparation of curriculum and materials for workshops, conducting workshops, working with cooperating institutions, and correspondence with participants.

In addition to Hobbs, two full-time employees work on preparing case studies and French-language materials, as well as conducting workshops.

ODA funds are also supporting a part-time case writer. The above staff, in addition to other ISNAR staff and consultants, prepared the three country surveys.

Overall management of the CDA project and program planning are the responsibility of the training division head. Given his busy travel schedule and other responsibilities, however, he is sometimes unavailable. ISNAR officials have recognized this problem and, in May 1984, assigned to the Executive Officer overall project coordination responsibilities.

ISNAR has explored two mechanisms for the management of the training program, the most complex project component, which the evaluation team found to be effective and recommends their continuation.

1. During the three-four months prior to the MAMC workshop, a committee of ISNAR staff involved in the CDA project met for one half day every two weeks. This committee was responsible for resolving programmatic issues, determining course content, and for overall planning. It seems that this process was beneficial as it involved a cross-section of staff responsible for all sections of the project. As a result, everyone had input into the design of the workshop and was also kept informed of the progress. This committee process is being repeated during the six weeks prior to the workshop planned in Cameroon for mid-September.
2. ISNAR has also recently begun a training activity summary sheet (Attachment G) to be completed for each workshop. This sheet will be useful as a planning tool and as a record for future programming and evaluation activities.

Recommendation

The team notes that a "project document" containing "a precise agenda and schedule for the materials preparation and workshop activities" as outlined in the program description (Appendix A, page 5), has not yet been completed. Given the growing number of activities under this project, the team recommends that this schedule of implementation be completed for the remaining seven months, or to the completion of the grant.

VIII. THE NEED FOR A PROJECT ASSISTANCE COMPLETION DATE (PACD) EXTENSION

In order to evaluate the need for a PACD extension, both the Phase I and Phase II teams examined the original, actual and planned project outputs. The Phase II team also examined the schedule of expenses through June 30, 1984 (Table 9) and planned expenses for the remainder of the project, ending May 31, 1985 (Table 10). The major findings are described below by project output.

Country Studies

The grant agreement called for four or five countries to be selected for an in-depth survey on management issues in agricultural research. However, early in the project life it was determined that three countries would be sufficient and, as a result, more thorough studies were obtained than was originally planned. Actual costs of the three country studies amounted to \$49,057 compared to a budget of \$49,750. ODA or ISNAR funding will be used to complete the summary report.

Case Studies

At the end of July, 1984 eight case studies have been completed out of the ten that were originally planned. Actual costs incurred through June amount to \$69,316 out of planned costs of \$100,000. At least two more case studies as well as teaching notes for all 10-12 case studies, will be prepared by ISNAR staff, which will complete the planned studies.

Workshops

The original proposal provided for nine separate workshops of one week each involving 20 participants each for a total of 180 participant/weeks. This plan projected an average cost of approximately \$1,918 per participant/week.

However, early in the life of the project it was determined that fewer workshops of longer duration with more participants in each seminar would be more effective from the teaching/learning perspective as well as being more cost effective.

The revised plan now provides for at least four workshops of either two or four weeks having 20 to 30 participants each for a total of 200 participants/weeks. This revised plan now projects costs to be approximately \$1,423 per participant/week. The biggest single factor in costs savings is the reduced expenses for participants travel to and from the workshops. (See Table 12.)

Although the training workshops were delayed in being implemented and there are now fewer workshops than originally planned, there will be more participant/weeks provided than originally planned at a significant savings. The bottom line is that approximately half as many participants (94 vs. 180) will have been reached but a greater number of participant/weeks (216 vs. 180) will have been gained. (See Table 5) According to ISNAR's perspective, under the revised plan attendees will have been exposed to a much broader range of instruction and, hopefully, will have obtained a better base in understanding the techniques used in agricultural research management.

ISNAR has completed two seminars, one at ESAMI in Arusha, Tanzania in 1983 for 26 participants for two weeks, and recently in July 1984 at

MAMC in Swaziland for 19 students for a period of four weeks. In the latter seminar, AID funded 14 participants, ODA funded two and MAMC provided funds for three. ISNAR is committed to conduct at least two more workshops, during September, 1984 in Cameroon for 20 students for two weeks and in February 1985 in Mali for 24 students also for two weeks. If funds are available, Schedule of Planned Expenses: Table 10 indicates availability of approximately \$69,000, ISNAR will schedule at least one additional seminar, in Kenya in April/May 1985.

Recommendation

Given the above modifications ISNAR is now on schedule and has adequate funds to complete the project activities currently committed and tentatively planned. An extension of the PACD past May 31, 1985 is not recommended at this time, however, in the event the training program planned for Kenya cannot be implemented prior to the PACD, a reasonable extension, at no additional cost, would be recommended. Further, it is recommended that a Terminal Disbursement Date be established at 90 days after the PACD to allow for final accounting activities.

IX CONCLUSION AND RECOMMENDATION FOR CONTINUATION

The evaluation teams have been impressed by the quality of project outputs and ISNAR's achievements within such a short time period. Particularly impressive is the evident satisfaction of the participants at the MAMC workshop and by all those from the ESAMI workshop who returned questionnaires. Without exception, these 26 African managers of agricultural research have indicated their satisfaction with the workshops and the opinion that their management skills have been improved as a result. The team believes that the quality of the training has been high.

The evaluation teams believe that ISNAR's commitment to the spirit of the agreement with AID is without doubt. ISNAR has shown initiative in a continued attempt to improve the quality of the training offered, and to make training tools available and effective for others. Where shortfalls in performance by ISNAR have been cited, recommendations for their correction have been suggested. The team is confident that these recommendations will be followed.

The Phase I team reiterates the need for adequate preparatory time and for attention to be given to the final evaluation so that the means of assessing the impact of: (1) the training materials and program on the participants' managerial skills; and (2) improved management skills on the effectiveness and efficiency of agricultural research programs may be explored. If the impact and linkages are to be explored, advance work will have to be done to identify current situations to determine what, if any, changes have occurred. Early selection of the evaluation team and communication between ISNAR and the team in advance of the future

training workshops would help to insure the opportunity for the impact of the training to be effectively evaluated.

In conclusion, the team recommends that AID and other CDA members continue support of the ISNAR project and, pending the results of a final impact evaluation, consider additional funding in the future.

FOOTNOTES

- 1/ Annual Report, inside cover
- 2/ CDA is an informal association of seven donor countries -- Belgium, Canada, Federal Republic of Germany, France, Great Britain, Italy and the United States -- which coordinates and cooperatively funds projects in five initiatives across sub-Saharan Africa.
- 3/ Cameroon Country Study, p. 1 (draft)
- 4/ Due to prior commitments, the evaluation team leader had to depart on Thursday. The two other evaluation team members remained through the final sessions and departed on Saturday.
- 5/ One course participant left Tuesday morning due to prior commitments and was not a part of the group interviews. He was interviewed informally by team members.
- 6/ ESAMI is an African institution receiving operating and special project funding from a variety of donors. While it was planned that country governments would also provide financial support to this institution, this has rarely been the case. The majority of the teaching staff is African.

MAMC is presently established as a sub-section of the Commonwealth Development Corporation (CDC) which provides the teaching staff's salaries. Other costs are covered by participant fees. Presently 40 percent of the professional staff (2 instructors) are on a 2-3 year rotation with CDC.

- 7/ As an institution of the Commonwealth Development Corporation, the locus of decision-making and power over MAMC is in London. Recruitment of staff has typically been skewed toward Westerners. While some minor changes have been made (e.g., a recent recruitment advertisement in The Economist offers passage from MAMC to one's home country, in contrast to previous advertisements offering passage to the United Kingdom only), and a major change has been discussed (i.e., the formation of an independent board of managers for MAMC which would draw heavily on Swazi participation and which would be provided with an endowment to maintain current support levels), major changes are most likely to occur in the longer-run rather than the short-run.
- 8/ A proposal which goes beyond the scope of the recommendations of this evaluation has been suggested by A. O. Williams in an effort to more adequately address the long-term objectives of management training. Following is an excerpt from Dr. Williams' letter:

"It is important at this point that some consideration be given to the establishment of an Independent Agricultural Management Institution in Africa which will be devoted

entirely and exclusively to this important and cost-effective activity.

"Such an institution can be jointly run by a United States nominated Agent or Contractor, the United Kingdom Government, the African Development Bank and the OAU/STRC or other African Organizations. Such an institution could be juxtaposed to the MAMC which is United Kingdom sponsored or to any other management institutions in Africa which is considered suitable by a selection committee. ISNAR should certainly be involved in the establishment of such an African institution. This could form a concrete CDA project for Anglophone countries while a similar institution can be established in the Sahel for Francophone countries. The institute should be called 'THE AFRICAN INSTITUTE FOR RESEARCH AND TRAINING IN AGRICULTURAL MANAGEMENT.'" Such an institution will certainly serve the long term objective as stated in the AID Grant No. AFR-0445-G-SS-2077-00 [ISNAR]. This suggestion will be supplementary to the statement on page [19]. I do not think that any of the short term objectives, as currently pursued, will lead to the building of a base for long term capabilities. If the Commonwealth Development Cooperation is interested in this proposal, the proposed institute will benefit from their long years of experience in the training of the lower cadre of African Managers."

9/ Annual Report, pg. 55

TABLE 1: COUNTRY STUDIES: SUMMARY OF ISNAR ACTIVITIES AT MID-PROJECT*

PERIOD (Year, Month)	ACTIVITIES AND OUTPUTS	OBJECTIVES	INPUTS:	
			PERSONNEL	TIME
1983				
Feb	Identified subjects for focus of agricultural research management training: 1) Program planning; 2) Supervision of field-level subordinates; 3) Task analysis and career planning; 4) Leadership styles; and 5) Visitors management.			
April	Zimbabwe field work	Analyze jobs of agricultural research managers	3 person ISNAR team	3½ weeks
August	Zimbabwe study completed: "Training Requirements for Agricultural Research Management in Africa: A Case Study of the Department of Research Services in Zimbabwe"			
Oct/Nov	Sudan field work	Analyze jobs of agricultural research managers: "How management training might improve performance"	3 person ISNAR team (incl. 1 Sr. USAID official)	3 weeks
	Cameroon field work: Identified strengths and weaknesses of Cameroonian agricultural research management.	Analyze jobs of agricultural research managers	4 person ISNAR team (incl. 2 FAO Sr. Staff members)	7½ weeks
1984				
Jan - Mar	Draft "working paper" of Cameroon study			
(Jan/Feb)	Draft of Summary Report: Zimbabwe, Sudan, Cameroon (FOI: Sept 1984)	Provide a basis on which the long term management training (for ag. research) strategy of ISNAR and other organizations may be developed		

* Work completed by ISNAR under AID Grant AFR-0445-G-SS-2077, as of August 31, 1984.

SOURCE: Technical Reports 1-4, covering February 1983 - June 30, 1984 and Mid-Project Evaluation Team Review, MPMC, Mhlume, Swaziland July 29 - August 3, 1984

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TABLE 2: CASE STUDIES: SUMMARY OF ISNAR ACTIVITIES AT MID-PROJECT*

PERIOD (Year, Month)	COUNTRY	TITLE	TOPIC	TRAINING MODULES**
1983				
January	Kenya	"Manpower Planning In Kenyan Ag. Research"	Manpower Planning	#3
Feb - Sept	Tanzania	"The Planning of Cashew Research in Tanzania"	Program Planning	#1
Aug - Sept	Cameroon	"Budgeting at Ekona"	Budgeting	#5
	Cameroon	"Visitors to Ekona: A Communication Exercise"	Information Management	#4
November	Sudan	"The Nile Valley Project: A Unique Model of International Cooperation?" (Draft)	Manpower Planning	#3
1984				
Jan - March	Nigeria	"Conditions of Service for Agricultural Research Scientists in Nigeria: What room for Manoeuvre?"	Manpower Planning	#3
	Rwanda	"L'Approche du Programme National d'Amelioration de La Rome de Terre au Rwanda"		
	Cameroon (?)	"Les Vehicules" (Field Research)	Transportation Management	#2
	Zimbabwe (Pending)	"The Development of Training Plans for Agr. Research Scientists in Zimbabwe". (Field Research)		

* Work completed by ISNAR under AID Grant AFR-0445-G-SS-2077, as of August 31, 1984.

** A module is defined as "a self-contained teaching unit 2-3 days long" which may be "put together in different combinations... (to) form seminars of various lengths for various types of target groups."
Modules identified: 1) Program identification and planning; 2) Operation management; 3) Manpower and conditions of service; 4) Information management; and 5) Budgeting and accounting.

SOURCE: Technical Reports 1-4, covering February 1983 - June 30, 1984 and Mid-Project Evaluation Team Review, MPRC, Mbuluzi, Swaziland July 29 - August 3, 1984

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TABLE 3: WORKSHOPS: SUMMARY OF ISNR ACTIVITIES AT MID-PROJECT (ACTUAL AND PLANNED)*

PERIOD	INSTITUTION AND LOCATION OF WORKSHOP	PARTICIPANTS (NUMBER)	COUNTRIES (NUMBER)	LENGTH (WEEKS)	STAFF/NO.	PERCENT OF REPRESENTATIONS
1983						
July 19-30	ESMI Workshop Arusha, Tanzania	26	10	2	ESMI ISNR MHC (1)	
1984						
July 9 Aug 3	MHC Workshop Mhlume, Swaziland	19	9	4	MHC (3) ISNR (3) FAID (1)	45.0 38.75 3.75
Sept	FAID Douala, Cameroon	30**	1	2**	FAID (9) ISNR (4)	
1985						
Feb	CILAS Bamako, Mali	27**	2**	4**	ESGE ISNR	
Mar	INSH Kenya	27**	2**	4**	? ISNR	

* Work completed by ISNR under AID Grant AFR-0445-G-SS-2077, as of August 31, 1984.

**Incomplete data or projected figures.

SOURCE: Technical Reports 1-4, covering February 1983 - June 30, 1984 and Mid-Project Evaluation Team Review, MHC, Mhlume, Swaziland July 29 - August 3, 1984

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TABLE 4: PARTICIPANT TRAINING PROGRAM OUTPUTS: GRANT, ACTUAL, PLANNED AT MID-PROJECT*

YEAR	GRANT				ACTUAL				PLANNED			
	WORKSHOPS	TRAINING WEEKS	PARTICIPANTS	PARTICIPANT WEEKS	WORKSHOPS	TRAINING WEEKS	PARTICIPANTS	PARTICIPANT WEEKS	WORKSHOPS	TRAINING WEEKS	PARTICIPANTS	PARTICIPANT WEEKS
	(Number)				(Number)				(Number)			
1982	1	1	20	20	0	0	0	0	-	-	-	-
1983 (ESPMI)	4	4	80	80	1	2	26*	52	-	-	-	-
1984 (MRC and FAID, Cameroon)	4	4	80	80	1	4	16*	64	1	2	30	60
1985*** (INSH and Kenya)	0	0	0	0	-	-	-	-	2	4	54	108**
TOTALS	9	9	180	180	2	6	42	116	3	6	84	168
TOTAL: ACTUAL AND PLANNED									5	12	126	284
PERCENT OF GRANT:									56%	133%	70%	157%

* Work completed by ISNAR under AID Grant AFR-0445-G-S9-2077, as of August 31, 1984.

** AID funded 26 at ESPMI; AID funded 14, OIA funded 2, MRC funded 3 at MRC (Total: 19)

*** 24 AT INSH/2 WEEKS + 30 AT KENYA/2 WEEKS. (Projected)

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TABLE 5: MANAGEMENT TRAINING EXERCISES: SUMMARY OF ISNAR ACTIVITIES AT MID-PROJECT*

PERIOD (Year, Month)	TECHNIQUE	MODULE
1983		
1984	Defining and scheduling research project activities	
	Costing and budgeting research project activities	
	Coordinating and controlling research project activities	
	Planning research project activities	
	Monitoring research project activities	

* Work completed by ISNAR under AID Grant AFR-0445-G-SS-2077, as of August 31, 1984.

** A module is defined as "a self-contained teaching unit 2-3 days long" which may be "put together in different combinations...(to) form seminars of various lengths for various types of target groups." Modules identified: 1) program identification and planning; 2) operation management; 3) manpower and conditions of service; 4) information management; and 5) budgeting and accounting.

SOURCE: Technical Reports 1-4, covering February 1983 - June 30, 1984 and Mid-Project Evaluation Team Review, MPMC, Mhlume, Swaziland July 29 - August 3, 1984

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TABLE 6: OTHER ISNAR ACTIVITIES: VISITS AND CONSULTATIONS AT MID-PROJECT*

PERIOD (Year, Month)	ACTIVITY	LOCATION	OBJECTIVE	PERSONNEL	OUTCOME
1984					
Feb	Visit	Khartoum, Sudan	1) Discuss draft country working paper 2) Plan future training activities	1 person (ISNAR staff; country study team leader)	
Mar	Visit	MIMC, Mbuluzi, Swaziland	Detailed planning for July 1984 four week workshop	1 person (ISNAR staff)	Four week workshop July 9 - Aug. 3, 1984
June	Visit	Cameroon	1) Gather reactions to the working paper of country study 2) Make specific plans for future management training activities	3 persons (ISNAR staff)	1) Paper well received 2) Plans made for first in a series of country-level training workshops (Sept 84)
June	Visits	Ougadougou, Burkina Faso Bamako, Mali CIIAS/Institut du Sahel	Discussion with staff about organization of management training programs in 1985	2 persons (ISNAR staff)	Tentative plans for seminar in Bamako Feb/Mar 1985

* Work completed by ISNAR under AID Grant AFR-0445-G-SS-2077, as of August 31, 1984.

SOURCE: Technical Reports 1-4, covering February 1983 - June 30, 1984 and Mid-Project Evaluation Team Review, MIMC, Mbuluzi, Swaziland July 29 - August 3, 1984

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TABLE 7: MAMC-ISNAR WORKSHOP:
DISTRIBUTION OF WORKSHOP SESSIONS BY SUBJECT, WEEK AND PERCENT

SUBJECT	NUMBER OF SESSIONS				TOTAL	PERCENT
	(1)	(2)	(3)	(4)		
(Regular Workshop Sessions)						
1 Administration & Registration	1				1	1.25
2 Intro. to Workshop & ISNAR	1				1	1.25
3 Human Side of Research Mgmt.	4		7	6	17	21.25
4 Perspectives on Research Mgmt.	2	2	1	2	7	8.75
5 Economics for Research Mgmt.	4	2	2		8	10.00
6 Management Tools / Research Mgmt.	3	10	6		19	23.75
7 Case Studies	3	1	1	6	11	13.8
8 Action Planning Groups	2	1	2	1	6	7.5
9 Final Project: CIAT			1	5	6	7.5
10 Simulation: The Green Revol. Game		4			4	5.0
Totals	20	20	20	20	80	100
(Afternoon Sessions)						
READ CASE STUDY	4	1	2	4	11	
CLASS PREPARATION (OTHER)	2	4	3	2	11	
Total Afternoon					22 *	
MAJOR PROJECT: CIAT		1	2	1	4 **	
(Evening Sessions)						
ORAL PRESENTATIONS				2	3	
FILM	2	1			3	
TUTORIALS	4			1	4 ***	
TEAM EVALUATION				1	1	
SOCIAL	1	1	1	1	4	
Total Evening					15	
PROJECT FORMULATION			4		4 ****	

* Number of assignments scheduled for afternoons, excluding major project

** Number of major project assignments on schedule exclusively in the afternoon (including preparation and presentations).

*** Optional?

**** Special sessions requested by participants.

TABLE 8: MAMC-ISNAR WORKSHOP:
DISTRIBUTION OF WORKSHOP SESSIONS AMONG THE TWO STAFFS
AND BY TRAINING METHODS*

SUBJECT AREA	MAMC		ISNAR		PARTICIPANT		TRAINING METHOD(S)**
	NO.	PERCENT	NO.	PERCENT	NO.	PERCENT	
1 ADMINISTRATION & REGISTRATION	1	1.25					O
2 ITRO. TO WORKSHOP & ISNAR			1	1.25			L
3 HUMAN SIDE OF RESEARCH MGNT.	17	21.25					L/SMG
4 PERSPECTIVES ON RESEARCH MGNT.			7	8.75			L
5 ECONOMICS FOR RESEARCH MGNT.	8	10.00					L
6 MANAGEMENT TOOLS /RESEARCH MGNT.	4	5.00	15	18.75			L/SMG
7 CASE STUDY			11	13.75			CS
8 ACTION PLANNING GROUP	6	7.5					SMG
9 FINAL PROJECT					6	7.5	SMG/PP
10 SIMULATION: THE GREER. REV. GAME	(4)	(5.0)	(4)	(5.0)	(4)	(5.0)	SIM
TOTALS	36	45.0	34	42.5	6	7.5	

* Most sessions lasted approximately 75 minutes.

** Key: O = other; CS = case study; L = lecture; SMG = small group work; SIM = simulation; PP = participant presentation. Some methods were used in combination, such as L/SMG = lecture and small group work.

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ISNAR CDA Project
Schedule of Expenses
Through June, 1984

TABLE 9

	AID		ODA		ISNAR		TOTAL	
	<u>LOP Budget</u>	<u>Expenses</u>	<u>LOP Budget</u>	<u>Expenses</u>	<u>LOP Budget</u>	<u>Expenses</u>	<u>LOP Budget</u>	<u>Expenses</u>
A. Study % Complete	\$49,750	\$49,057 99%	\$20,750	\$77,589 374%	\$35,250	\$55,320 157%	\$105,750	\$181,966 172%
B. Case Writings % Complete	100,000	69,316 69%	46,250	16,542 36%	23,000	3,908 17%	169,250	89,766 53%
C. Workshops % Complete	345,250	133,714 39%	77,000	3,325 4%	109,100	53,617 48%	531,350	190,656 36%
D. Contingency % Complete					9,000	5,162 57%	9,000	5,162 57%
Total % Complete	\$495,000	\$252,087 51%	\$144,000	\$97,456 68%	\$176,350	\$118,007 67%	\$815,350	\$467,550 57%

ISNAR CDA PROJECT

TABLE 10

Schedule of Planned Expenses

AID FUNDS -

Actual Expenses Thru June 84	\$252,087
Additional - Accrued Expenses July For Mananga Workshop	40,459
Planned -	
Cameroon Workshop - September 84	18,745
Mali (Sahel) " February 85	42,450
ISNAR Staff Expenses	
Aug 84 thru May 85 - 10 months @ 7,200	72,000
Total Projected Expenses	<u>426,000</u>
Grant Agreement Amount	<u>495,000</u>
Projected uncommitted balance	\$ <u>69,000</u>

ISNAR CDA PROJECT
Cash Flow Sequence

Table 11

	9-30-82 3-31-83 1	4-1-83 6-30-83 2	7-1-83 9-30-83 3	10-1-83 12-21-83 4	1-1-84 3-31-84 5	4-4-83 6-30-84 6
1. Cash Advance on Hand Beginning of Period	\$ 0	\$(14,745)	\$(43,185)	\$ 516	\$(15,737)	\$(28,527)
2. Advance Received During this Period	0		130,000	0	0	0
3. Interest Earned			0	2,230	298	0
4. Gross Cash Advance Available (1+2+3)	0	14,745	86,815	2,746	(15,439)	(28,527)
5. Less Interest Remitted During this Period	0		0	0	2,230	0
6. Net Cash Advance Available (4-5)	0	(14,745)	86,815	2,746	(17,669)	(28,527)
7. Total Disbursements During Reporting Period	14,745	28,440	86,299	18,483	10,858	93,262
8. Amount Cash Advance Available at End (6-7)	(14,745)	(43,185)	516	(15,737)	(28,527)	(121,789)
9. Projected Disbursements Next Period -			36,000	19,779	28,500	114,726
10. ADD'L Cash Advance Requested - Next Period			35,484	35,516	57,027	236,515

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ISNAR CDA PROJECT
Workshops - Cost Comparison

Table 12

	Number of Participants per workshop	Number of Workshop	Length of Workshop	Participant/ Weeks	Total Cost	Average Cost per p/w
<u>Original Proposal</u>						
1982	20	1	1	20		
1983	20	4	1	80		
1984	20	<u>4</u>	1	<u>80</u>		
Total		9		180	<u>\$345,250</u>	<u>\$1,918</u>
<u>Revised Plan</u>						
Actual Costs						
1983 Tanzania (Arusha)	26	1	2	52	77,567	1,492
1984 Swaziland (Mananga)	14	1	4	56	96,606	1,725
Planned Costs						
1984 Cameroon	30	1	2	60	18,745	} 1,233
1985 Mali	24	1	2	48	42,450	
Direct Charges from ISNAR		—		—	<u>72,000</u>	
Total Planned and Actual		4		216	<u>\$307,368</u>	<u>\$1,423</u>

AP

STRENGTHENING THE MANAGEMENT OF AGRICULTURAL RESEARCH IN AFRICA:
A STAFF DEVELOPMENT PROPOSAL

Per capita food production is declining in many parts of Africa. Between 1969 and 1978, the annual average increase was less than 2% in all but twelve sub-Saharan countries - considerably below the rate of population growth. Present food scarcity conditions are therefore likely to become even more severe unless agriculture can be made more productive. The issue is how to bring about such change.

One possibility is clearly the more efficient use of existing resources, while another is the development of new technology. Both courses are necessary and can be pursued simultaneously. But a major constraint in Africa continues to be the scarcity of top-quality agricultural research managers. Too often, scientists with inadequate management experience have been promoted into senior positions, so that both science and management have suffered. And too seldom have such officials received enough in-career management training.

I. BACKGROUND

The CGIAR Task Force which recommended the establishment of ISNAR noted that "planning, organizational, and management issues" are "at the root of the (agricultural research) problem in most (African, Asian, and Latin American) countries". It therefore declared that the main purposes of ISNAR were to be:

- (1) to help countries identify their needs "for planning and carrying out agricultural research, together with training and links to extension";
- (2) to assist them in determining research priorities and strategies;

- (3) to help in formulating programs of action, including programs to develop trained manpower; and
- (4) to assist in the design of necessary organizational arrangements for carrying out such programs.

Since its formal opening in 1980, ISNAR has begun work with 10-15 countries on various aspects of their national agricultural research systems. In Africa, for example, an ISNAR team in 1981 cooperated with the Kenyan National Council of Science and Technology on a review of Kenyan agricultural research programs and problems. That review has recently led to a request from the NCST for further cooperative work in the field of manpower planning and training. In 1982, ISNAR has also begun review and follow-up programs with the governments of Malawi, the Ivory Coast, Rwanda, and Upper Volta. Several ISNAR staff members have had extensive agricultural research and education management experience in West, Central, Eastern, and North Africa (see Annex 1).

ISNAR has been associated with CDA activities for more than one year. It has been an invited observer at early meetings of the CDA Technical Group on agricultural research. The present proposal, in fact, grows out of discussion and encouragement given by the Technical Group to ISNAR at those meetings.

ISNAR has a special role in relation to national agricultural research systems in the developing countries. It was established in 1980 but has moved ahead vigorously in program and staffing to meet the multiplicity of requests for review, analysis, planning and continuing cooperation from developing countries. With a worldwide mandate ISNAR has attempted to establish and maintain a geographic spread as well as contact with countries covering a broad range of resources and needs. Training is one element within ISNAR's mandate and this is the particular area where the present proposal has a clear fit between ISNAR's and CDA's objectives. The original concept paper for CADA activities in agricultural research observed that strengthening of national

agricultural research systems with a focus on training is essential. The meeting itself concluded that the training of research administrators and managers, as well as technical specialists, should be pursued as rapidly as candidates are available. The second meeting of the Technical Group in August 1981 concluded that training for research directors and managers should be given high priority. (emphases added).

While ISNAR has already initiated cooperation with several national agricultural research programs in Africa, as noted above, it does not have the resources to undertake a special training program in Africa. Its resources are limited and in the area of training the existing resources are programmed for wider geographical coverage. Africa has special needs in terms of the size and scope of the problems to be overcome in meeting the need for large increases in trained manpower. A special effort will be required in preparation of applicable teaching materials (eg. case studies) for management training. Also, the numbers of persons who are to be involved in the proposed training programs in Africa go far beyond ISNAR's ability to handle within its resources. Therefore, additional resources are required to provide an African focus to prepare appropriate materials, and to fulfill the training needs for the relatively large numbers that the CDA program wishes to reach.

From ISNAR's review and analysis of national agricultural research systems a common theme has emerged which is the urgent need to improve the management of agricultural research. Improved management needs include program formulation, program implementation and communication as well as general improvement in managing available human and financial resources. It has been noted that programs are often identified on an informal and unsystematic basis, implementation depends largely on the personal energy of program leaders, communication between similar programs is haphazard, conditions of service are unattractive, and the link between research and farmers is weak.

But how to work with national governments in the solution of such problems? ISNAR recognizes two broad and complementary approaches.

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- (1) Organizational change within research systems. ISNAR reviews have concluded that existing structure and procedure are often severe deterrents to research, and that at least moderate reform is essential. Managers cannot work effectively in difficult organizational environments - no matter how well they have been trained. ISNAR sees its major role as that of catalyst in the process of encouraging such reform, and in assisting national research systems to adopt good "planning, organization, and management" practices.

- (2) In-career training for research managers. At the same time as organizational change is occurring, professional staff must be developed who can manage resources well. ISNAR reviews have identified the use of human resources as one of the major constraints on effective research. A major emphasis in the training which ISNAR proposes will be on the fit between existing structure and procedure, on the one hand, and organizational objectives on the other.

More specifically, five subject areas will form the core of ISNAR's early activities in training for research managers. ISNAR is well placed to organize training in these areas, because of the unique data on "planning, organization, and management" which it continually generates on research systems through its review and follow-up activities.

- (a) Program identification and planning. Who makes decisions about research priorities? How are problems brought to the attention of decision-makers? What kinds of data do they have available? What criteria do they use?

- (b) Program implementation. How do research managers organize interdisciplinary teams and assign specific research tasks? How do they organize maintenance and support services? How is station management integrated with

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- (c) Personnel management. How are research staff recruited? How are they evaluated? How are they rewarded? What different types of careers are available to them?

- (d) Information management. How is communication within the research network organized? What types of data move through it, according to what procedures, and by what means? How to prevent information becoming an end in itself, rather than a means of contributing to rational decision-making?

- (e) The delivery of the research product. How is the research/extension distinction managed? What are the implications of on-farm research programs for maintaining it? What administrative (and even political) considerations must be taken into account in relating research to the farmer?

More detail is needed now about each of these fields. ISNAR's country reviews have provided general information, but more specificity is required as the basis for training programs. The study part of the proposal (described below) is designed to answer questions as to WHO needs to be trained in each of these fields, WHAT particular management skills are in shortest supply, and HOW in-career management training can best be conducted for agricultural research managers.

The outcome of this initial activity will be a "project" document providing a precise agenda and schedule for the materials preparation and workshop activities.

II. PROJECT DESCRIPTION

The ISNAR proposal to CDA has two parts: (1) a field study to determine specific management development needs in African agricultural research; and (2) support for a program of management workshops in

ISNAR's objective in both these activities is to strengthen the management base of national research programs in Africa. Its strategy is to concentrate on a few selected countries initially, so as to build up management capacity and training experience there before extending lessons learned to other countries.

ISNAR sees the field study and the workshops as related activities, but not as completely sequential ones. It envisions that the study will be started first - as soon as possible - but that the workshops will get underway (in 1982 and early 1983) before the study is completed. Both activities are described in detail below.

I A. The Study

The study will focus on "in-career" management training needs for agricultural research systems. Its objective will be to assess these needs in Africa, and to recommend ways in which training programs to meet them can be organized and supported.

The conceptual framework of the study will be composed of three basic components: (a) the training recipients; (b) the educational producers; (c) the training vehicles.

The training recipients are the target group of this proposal. ISNAR missions have identified five levels of personnel involved in national research activities.

- (1) National policy-makers, who set research objectives and allocate resources.
- (2) Research directors (managers), who provide information to policy-makers and who are responsible for the implementation of programs.
- (3) Research staff (scientists), who provide scientific leadership and who actually carry out programs.

(5) Laborers.

Management is the process of organizing and operating a series of activities as a coordinated, productive whole; therefore the research manager must be concerned not only with his own training needs, but also with those at all different levels of the organization. The study will make an inventory of the management skills required at each level, and will propose specific training programs to develop them. The design and implementation of training programs must take a system-wide perspective in order to avoid creating manpower bottlenecks at particular levels in the system, or avoid fragmented training in the face of a highly interrelated system.

Though a system-wide perspective will be used, it is clear that a balance must be struck between limited resources and the training needs of national agricultural research systems. Therefore, the study will develop short-term and long-term strategies for answering the management training needs of African agricultural research systems. On the short-term, the study will guide the design of workshops to address the immediate management training needs of research directors and upper-echelon staff to assure that key decision-makers are better prepared, to better disseminate an understanding of the training needs of the entire research system, and to assure top level support for long-term management training programs. On the long-term the study will propose specifically how permanent management training can be institutionalized in Africa.

The educational producers are those people and institutions that deliver the training to the target recipients. A successful transfer of knowledge, be it agricultural research findings, or management training, must include a delivery system to the target recipients. Therefore, though the primary objective will be to upgrade the skills of research managers, an important secondary objective will be to implement a long-term management training capacity for agricultural research in Africa.

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Achievement of the latter goal is crucial if such training in Africa is ever to become a local enterprise, rather than one funded and organized mainly by expatriates. The growth of national and regional training capacities will encourage program continuity and provide at least some assurance of program relevance. ISNAR expects to identify several management schools, agricultural colleges, and other institutions which have the capability and potential support for research management training, and with which it can cooperate over a period of several years. Such institutions may be identified in consultation with the African Association for Public Administration and Management (AAPAM), the Organization of African Unity (OAU/STRC), the Pan African Institute for Development (PAID), and the Eastern and Southern African Management Institute (ESAMI). They will most likely be in the "phase 1" CDA countries, but will serve regional clienteles.

ISNAR's support for these institutions will include assistance with program orientation, materials preparation, course content, teaching methods, and the identification of external resources (both manpower and financial).

The training vehicles are the tools that educational producers use to reach the training recipients. Training vehicles can be pedagogical materials (e.g. manuals, books, cases) and pedagogical formats (e.g. classroom lectures, case-discussion workshops, conferences). After recipient needs are identified, the task is to determine what mix of training vehicles should be used. In selecting this mix the costs and benefits of each vehicle have to be examined individually in the light of the particular capabilities of the training organizations and the characteristics of the end recipients of the training. The study proposes to do this in an African context, and will give specific recommendations for preparing appropriate training vehicles based on critical recipient needs, the capabilities of African training institutions, and an evaluation of existing materials.

In the planning and execution of the study, ISNAR will stay in contact with those African institutions which can help with planning, which can help open doors, and who seek a possible long-term involvement

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CAU-SRUC (Organization of African Unity), AAASA (The Association for the Advancement of Agricultural Sciences in Africa), PAID (the Pan African Institute for Development), ESAMI (the Eastern and Southern Africa Management Institute), and CILSS (Comité Permanent Interétats De Lutte Contre La Sécheresse Dans Le Sahel). Four or five countries will be chosen for examination, in consultation with COA and the above-mentioned organizations. Criteria for country selection will include agro-climatic conditions, the size of the national agricultural research system, its technical base, its major structural characteristics (including relations with extension), and its involvement with farmers. As much variation as possible will be sought on each of these dimensions.

Investigation in each country will focus on answering (at least) the following questions:

- (1) What are the critical skills required for the efficient management of agricultural research?
- (2) What are the current strengths and weaknesses in the management of African agricultural research?
- (3) How can the management of African agricultural research be upgraded?
- (4) How much demand exists for the improvement of research management skills?
- (5) How can in-career management training for African agricultural research officials best be institutionalized?

The study team will be composed of an ISNAR staff member and a consultant, who will spend 2-3 weeks in each of the 4-5 selected countries. The study will have three parts: (1) an inventory of the management training needs of African agricultural research systems, (2) recommendations for liaison with African educational institutions, (3) evaluation and recommendations for appropriate training vehicles. The inventory of training needs will be drawn up by visiting and interacting with the staff in a diverse set of African agricultural research

institutions, and by drawing on ISNAR's expertise. The study team will also visit African educational institutions to evaluate their capabilities and potential support for long-term research management training. The inventory of training needs and the discussions within the educational institutions will be used by the study team to recommend the appropriate training vehicles to be used. The study report will provide a basis for future action in "management development" for agricultural research. No similar analysis of such issues in Africa is known. Fragmentary information exists now in scattered reports, but it has not been pulled together. The proposed study will therefore be integrative, at the same time as it breaks new ground by focussing on training needs in agricultural research management, the educational expertise available that can be used and improved, and the training vehicles that would be most effective in achieving research management training objectives.

B. Workshops

Education is the basic vehicle for developing the human resources of a country. Furthermore, education should be recipient-oriented in order to ensure relevancy. Recipient orientation in education is incomplete without insuring the institutional capability to deliver the education. Appropriate training is incomplete without appropriate trainers. ISNAR proposes to play a catalytic role in bridging the gap between national agricultural research systems and educational institutions.

It is clear that agricultural research management courses must be brought to national research institutions. It is also clear that agricultural research management courses must be introduced into educational institutions. These courses do not exist, anywhere. The elements exist in different places; in management schools, at agricultural colleges, in the research systems, in ISNAR. But an integrative agricultural research management course must be developed from its elements. Once such a course is designed, introducing this course to the agricultural research systems will be relatively easy if the course truly addresses recipients' needs. Introducing this course into educational institutions will be more difficult, as these institutions may not recognize agricultural research management as a

priority objective. Furthermore, even if the need is recognized and articulated, the educational institutions will be lacking an awareness of the specific training needs of national research systems. Therefore, ISNAR proposes to introduce the concept of agricultural research management to both agricultural research institutions and educational institutions through a series of workshops.

Six day workshops seem an excellent vehicle to introduce agricultural research management into the curricula of African educational institutions. A week-long course will not jar teaching schedules nor tax institutional resources too much, while at the same time allowing local faculty to begin to assimilate the supplementary knowledge they will need to teach a more permanent program. African management professors will improve their understanding of the language, concerns, and technical know-how of research personnel. At agricultural faculties, the professors will broaden their managerial perspectives, and improve their understanding of the specific demands of research management.

On the other hand, agricultural research staff are also very busy people, and a short, intense, introductory management course seems appropriate. A week long course will allow enough time to address the most critical needs, to introduce research staff to the legitimacy of management training, and to build a foundation for further training.

ISNAR proposes to organize one workshop in late 1982, in order to test the concept of one week agricultural research management courses, and to make any changes which the experience would demonstrate are required. ISNAR expects the workshop will be successful, and that four workshops will be held in 1983, and four more in 1984. Workshop content will evolve over time, and may include detailed program planning, and the use of various analytical tools for management (e.g. CPA, PERT, and PPBS). Determination of course content will be done by the proposed study, by interaction with the faculty, and by recipient-feedback.

The emphasis in all the workshops will be on agricultural research which is oriented toward the needs and priorities of small-scale farmers. Improvement in agricultural productivity is the goal. In order to stimulate such improvement, however, African research managers must

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develop programs appropriate to the conditions in which farmers live, and they must ensure that research results are efficiently and effectively delivered to farmers. The emphasis in the workshops will therefore be on research directors and scientists involved in rural change, rather than on research oriented toward narrow disciplines or outlooks.

Following each workshop, ISNAR will maintain contact with participants through the cooperation of national research institutions. Such contact will be an important means of evaluating past training experiences and of assessing new training needs. One approach which ISNAR intends to test is that of inviting selected participants back for second workshops, after perhaps a year, to evaluate the impact of the initial training experiences, to reinforce lessons learned, and to respond better to the needs of participants. Another is to encourage continuing contact and communication among African agricultural research managers and scientists.

1.1.C. Case-Writing

As has been indicated, the production of teaching materials is a critical step in the delivery of a training program. The ISNAR Training Program is constantly seeking and evaluating materials on research management. Very few of these materials exist, and ISNAR has concluded they must be written.

The case method has proven to be an excellent management training vehicle. A case is the description of an actual situation faced by a particular decision-maker at a given point in time. The reader is placed in the decision-maker's perspective, and is given the information, responsibility and accountability the decision-maker had at the time. The reader is therefore forced to analyze and make a decision based on a real situation. Typically, after individual reader analysis and some discussion in small groups, these cases are discussed at great length in a classroom with all participants. Cases do not have specific correct or incorrect answers, but participants must indicate what decision they have taken, and defend the analysis that led to that decision. The results are an enhanced capacity to take decisions, an increased rigor in the

analysis of decision alternatives, and the assimilation of specific management tools (e.g. program planning) in the context of a "live" experience.

The use of the case method has been enthusiastically embraced by management schools and institutions in developing countries as it allows for the development of materials that have a developing country orientation, and it allows participants to analyze and arrive to decisions according to their local value system.

There are very few cases on agricultural research management, but those that have been written and tested have proven extremely useful. In the Dominican Republic, a case on rice research policy was written, and used in a workshop. The result: the emphasis of Dominican rice research was shifted from the two-crop-a-year varieties the Dominican farmers were resisting to the high-ratoon crop varieties the farmers were seeking.

ISNAR is cooperating with CIMMYT's UNDP Special Project funding for case-writing. This cooperation has resulted in three cases on the following topics:

- (1) the management of an on-farm research program (Ecuador);
- (2) the management of research/extension linkages (Guatemala); and
- (3) the management of research careers (Guyana)

The current version of the Ecuador case is attached (Annex 2), as an example of the type of case produced to date.

ISNAR has learned much about the value of case-writing from CIMMYT's experience. The project has proven that relevant, interesting, and highly educational live cases can be written about agricultural research. Nevertheless, the successful training of African research staff requires the writing of a greater number of cases than is possible under CIMMYT's UNDP grant. ISNAR proposes to hire a case-writer to develop materials specifically for Africa. It is expected that the case-writer would produce two cases in 1982, at least five in 1983, and

three more in 1984. The case-writer would also help in the implementation of the workshops, particularly by helping to train African faculty in the art and science of case-writing.

The development of training materials in different agro-climatic zones in Africa can also serve as a means of diffusing information about agricultural research throughout the continent.

Possible subjects for ISNAR/CDA cases include:

- (1) identification of research priorities;
- (2) management of information flows between research stations;
- (3) recruitment to research positions; and
- (4) linkages with international research resources.

As such cases are developed, they will be available for use anywhere in the world, complete with teaching notes.

III. Schedule of Implementation and Evaluation

Implementation of the project will begin as soon as funds are available. The study will involve one ISNAR core staff member for 90 days and one consultant for 180 days. On the assumption that funds will have been approved by 1 September 1982, the bulk of the fieldwork for the study will have been completed by the end of 1982 and the report will be ready in early 1983.

Materials preparation, including case-writing, will require one consultant for 20 months, plus 50 days from an ISNAR core staff member for supervision and review. This activity will begin in September 1982 and will be completed in early 1984.

Workshop preparation will require 180 days from an ISNAR core staff members and 360 days from outside consultants (resource persons). One workshop will be organized in 1982, four in 1983, and at least four in 1984.

	1982	1983	1984
Study	X	X	
Cases Developed	2	5	3
Workshops	1	4	4

The first formal evaluation of progress in the project will take place 18 months after activities have been begun, i.e. when the study has been completed and when case-writing is approximately 2/3 finished. An appraisal at this point will allow modification in the remainder of the case-writing program if necessary, while a considerable part of the workshop program will still lie ahead. Criteria may include the rigor of the study and the quality of its recommendations, plus the use made of the cases in the initial workshops.

The final, end-of-project evaluation will be undertaken in 1985. This exercise will most likely have two parts.

- (1) An assessment of the impact of training programs on managers who have participated in them. ISNAR is already at work on the development of an interview schedule which can be administered before a course, immediately after a course, and 6-12 months after a course.
- (2) An assessment of the extent to which African training institutions have developed ongoing programs in research management. Indicators here may include the numbers and types of persons trained, and the numbers and types of programs given.

Participants in the mid-project evaluation might include one individual from CDA and one nominated by OAU/STRC. These individuals might be joined for the final evaluation by others from agricultural research programs in Africa and from management training institutions both in Africa and outside.

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STRENGTHENING THE MANAGEMENT OF AGRICULTURAL RESEARCH IN AFRICA:
A STAFF DEVELOPMENT APPROACH (698-0445)

INTERNATIONAL SERVICE FOR AGRICULTURAL RESEARCH (ISNAR)

Statement of Work for Mid-Project Evaluation

I. BACKGROUND

A.I.D. Project No. 698-0445 authorized an A.I.D. grant to the International Service for National Agricultural Research (ISNAR) as an activity addressing the goal of the Cooperation for Development in Africa (CDA) Association. The project and the CDA goal is to increase agricultural production by the small farm holder through strengthening national research programs which address the constraints of the small farm holder. The project purpose is to strengthen the management base of agricultural research systems in Africa. In FY 82, \$495,000 (LOP funding level) was obligated. The PACD is May 31, 1985.

Specifically, the project purpose is to be achieved through the following outputs (see program description, Attachment No. 1, for additional detail):

1. Complete 4-5 country studies which assess "in-career" management training needs and recommend means of responding to these needs;
2. Develop 10 case studies to be used in training programs;
3. Conduct 9 workshops with emphasis on agricultural research which is oriented towards the needs and priorities of small-scale farmers, including the research/extension linkage; and
4. Strengthen the long-term capacity in African training institutions by collaborating with these institutions in the planning and conducting of workshops and by providing direct assistance in case writing, curriculum design and other areas.

While the primary beneficiaries of this project are the training recipients, this project, through the fourth goal, also benefits the trainers of the cooperating institutions.

II. OBJECTIVE

The Grant Agreement for this project specifies that a mid-term evaluation will be conducted in collaboration with OAU/STRC in FY 1984. The objectives of the evaluation are to:

- (1) evaluate ISNAR's approach and progress in achieving the project purpose; and
- (2) assess ISNAR's effectiveness in conducting and completing project activities, particularly the relationships between curriculum,

training methodology and learner performance/satisfaction, as well as the development of the training capacity of the cooperating institution.

In addition to these items which are under the grant agreement, the evaluation team will examine the relationship between the improvement of agricultural research management, and the increase in the dissemination of research results to the small farm holder.

III. STATEMENT OF WORK

The evaluation will be conducted in two phases. Phase I will address the programmatic aspects of the project, and phase II will evaluate the financial and project management.

- A. The phase I evaluation team, in collaboration with representatives from OAU/STRC and ISNAR, will:
 1. Review ISNAR's documents (summary and country reports of Zimbabwe, Sudan and Cameroon surveys, case studies, course materials and six-month follow-on questionnaires submitted by participants who attended the July 1983 workshop) to assess the utility of these documents for designing curriculum materials and workshops which are necessary and appropriate to strengthen the management base of agricultural research in Africa;
 2. Observe the last week of sessions of the Swaziland workshop at the Mananga Agricultural Management Centre (MAMC), July 9 - August 3, 1984 and interview trainees to:
 - determine the relevancy of skills and knowledge learned to their present jobs and future careers;
 - evaluate the effectiveness of instructional materials and teaching methods; and
 - assess the role and importance of improved agricultural research management in facilitating the dissemination of research results to the small farm holder.
 3. Discuss with representatives from MAMC the effectiveness of ISNAR's efforts to help develop MAMC's capabilities to initiate new and continue ongoing agricultural research management training activities, as well as MAMC's future plans which stem from ISNAR's involvement; and
 4. Evaluate the need for a project assistance completion date (PACD) extension.
3. The phase II evaluation team will visit ISNAR headquarters in The Hague to:

1. review funding status and delays in the training component;
2. review reporting procedures and financial management; and
3. review efficiency of project management.

IV. REPORTS

Draft reports for each phase will be prepared in the field and copies given to ISNAR and team members for review. Each team leader will have the responsibility of finalizing the draft reports and submitting five (5) copies to Arlan McSwain, Project Officer, Office of Regional Affairs, Bureau for Africa (AID/AFR/RA) no later than August 31, 1984. The report will respond to the Scope of Work, including topics outlined in the Project Evaluation Summary form (Attachment no. 2). Guidance for each report is detailed below.

A. The phase I report will include:

1. Evaluation of ISNAR's outputs:

(a) Country Studies

Comments and recommendations as to: selection and number of countries; conclusions and use of results in designing training workshops.

(b) Case Studies

Comments as to relevancy of materials to different managerial levels and to African trainees.

(c) Workshop Component

Comments and recommendations as to: structure and length; content and presentation; usefulness to participants; and the internal evaluation process.

(d) Strengthening African Institutions

Comments and recommendations as to: criteria for selecting institutions; methodology and effectiveness in improving African institutional capabilities; level of follow-up; and possibilities for future A.I.D. involvement with these institutions.

2. Evaluation of, review and recommendations on any critical project issues and assessment of ISNAR's capability to complete projected outputs by PACD.

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3. Analysis of ISNAR's progress toward achievement of project purpose with emphasis on following questions.
 - How many participants has ISNAR trained to date?
 - How many will they train by the end of the project?
 - Has the training been relevant to the trainees' career development? To farmers' needs?
 - What is ISNAR's record in maintaining contact with graduates and providing follow-up services?
 - Are trainees being appropriately utilized by their respective governments?
 - Has this training resulted in any changes within the trainee's organizations?
 - Have trainees obtained and utilized project implementation, planning and resource management skills?
 - Will and how, in the participants' views, improved agricultural research management facilitate dissemination of research results to the small farm holder?
 4. Recommendations to A.I.D. concerning:
 - (a) continuation, modification or discontinuation of A.I.D.'s support to ISNAR;
 - (b) revisions to program description; and
 - (c) revisions to the Grant Agreement, including possible no-cost extension to complete activities.
- B. The phase II report will include:
1. A review of the project budget, expenditures to date, and projected costs, including any recommendations concerning the allocation of existing funds to complete project activities;
 2. An estimate of costs per participant for the two completed workshops;
 3. A review of reporting procedures in terms of conformance with A.I.D. reporting regulations and any recommendations for improvement; and
 4. An assessment of the project management structure, including the effectiveness of the time and personnel devoted to this activity, and the causes of the existing delay in the training component.

DRAFT

Modifications to the Program Description, Attachment 2 of the Grant
ISNAR Grant No. AFR-0445-G-SS-2077-00

In the Program Description, Section A, The Study, reference to "4-5 countries" in paragraphs 10 and 12 be deleted and "three countries" be substituted.

In the Program Description, Section B, Workshops, delete paragraphs 3-5 and substitute the following:

"In early 1982 ISNAR held a two-week regional workshop in collaboration with the International Institute for Tropical Agriculture (IITA) in Nigeria. Following this workshop, based on participants and instructors' comments, ISNAR determined that two weeks was a minimum time for a regional workshop to provide a minimum critical mass of management tools and perspectives in agricultural research management to effectively improve the management capabilities of research directors and scientists. Based on subsequent workshops and participant feedback, it has been determined that a three-four week period is most appropriate for a regional workshop.

In addition ISNAR will offer training at the national level as many management problems involve a total agricultural system, as opposed to any one individual. Given that some research directors and scientists will have been previously exposed to the concepts of agricultural research management during the country surveys and regional workshops, it is expected that the national workshops will be held in and supported by those countries where ISNAR has already been involved under this project or others. As participants at these workshops will be from all levels of the national agricultural research system, work in this sector will be severely limited during the workshop period. Therefore, two weeks would seem to be the maximum duration for a national workshop.

ISNAR proposes to hold one workshop in 1983, two in 1984 and two in 1985, for a total of twelve training weeks. With a projection of 125 participants, ISNAR proposes to provide approximately 280 participant training weeks. Workshop content will evolve over time, and may include detailed program planning and the use of various analytical tools for management (e.g., CDA, PERT and PPBS). Determination of course content will be based on the following:

1. consultations with national research leaders;
2. consultations with former participants at regional workshops who, as nationals, will be familiar with key problems, and, as former participants will be familiar with potential course content;

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3. review of ISNAR's collective knowledge as to what are priority management problems and concerns in the country; and
4. review of the possible contributions that African management institutions and/or professors can contribute to the curriculum.

As a result of these workshops, management professors will improve their understanding of the language, concerns, technical know-how of research personnel and specific demands of research management, as well as broaden their managerial perspectives."

In addition, Section B, Workshops, delete paragraph 7 and substitute the following:

"Following each workshop ISNAR will maintain contact with participants through the cooperation of national research institutions. Such contact will be an important means of evaluating past training experiences and of assessing new training needs. One approach which ISNAR intends to test is that of requesting recipient feed-back in the form of a questionnaire, after perhaps a year, to evaluate the impact of the initial training experiences, and to respond better to the needs of the participants. In addition, ISNAR plans to maintain contact with former participants through a newsletter, which will include updates on management training, and through occasional meetings with ISNAR staff."

BIOGRAPHICAL SUMMARY OF PARTICIPANTS ATTENDING ISNAR-MIMC WORKSHOP
MILME, SWAZILAND
JULY 9 - AUGUST 3, 1984

NAME	NATIONALITY	HIGHEST DEGREE	SCHOOLING	PRESENT EMPLOYMENT	PARTICIPANT'S MAJOR SPECIALTIES	FINANCIAL RESPONSIBILITY	ACCOUNTABILITY	PREVIOUS EMPLOYMENT
MUHAMMAD, Ali	Bangladesh	MA ('67)		Asst. Professor., Bangladesh Agric. University	Lecturer Library Assistant	N/A	Director, Graduate Training Inst.	Associate Instructor Social Researcher
MAZIMANI, Louis	Botswana	MS ('83)	BS: Agronomy Calif. State University MS: Plant Breeding Univ. of Nebraska	Head Cereal Improv. Program, Dept. of Ag. Res.; Administration and Technical	Technical Officer	Making estimates for the program budget	Supervisor (Chief Arable Research Officer)	Assistant Agronomist Agronomist in-Charge
KAMU, Charles	Kenyan	Diploma ('74)	MSc: Animal Science Univ. of Missouri Diploma: Animal Breeding University of Edinburgh	Director Nat. Animal Husbandry Res. Station in Charge of Administration	All Research Officers All Farm Managers All Junior Officers	All station funds	to the Director of Research in the Ministry to chief Accountant	Research Officer Coordinator of research programs
NUJUNA, Simeon	Kenyan	MS ('66)	BS: Agriculture Univ. of Wisconsin MS: Plant Science Tennessee Post Grad: Agrogenetics University of Wisconsin	Director Nat'l. Horticulture Research Center; Administration, Research, Policy & Training Prog.	9 senior research officers (56 other staff 300 supporting staff at station)	Total allocations	Ministry of Ag. Ministry's Accounting Officer	Maize Breeder Head Breeder
WALJIRA, Damian	Kenya	PhD	MS: Animal Prod. Univ. of Wales PhD: Dairy/Meat Science & Nutrition University of Wisconsin	Deputy Director/Chief Research Officer of Animal Prod. Prog. Kenya Agric. Res. Inst. Administration/ Liaison w/ Extension	directly 6 research officers, program has 120 personnel	U.S. \$1.4 million	Director of Kenya Ag. Res. Institute	Director of Research Station
MOHESENG, Elias	Lesotho	MS	BS: Agriculture MS: Adult Education Washington State Univ.	Runs livestock section Ministry of Ag. Res. Administrative and Advocacy (manages Agric. Res. Div. when Director is absent)	2 research officers	Draw up budget	Ag. Res. Director	Administration of Farmer Training Center
MWAILI, Barton	Malawi	MS ('71)	BA: Biology Wilkes College (U.S.) MS: Entomology Univ. of Mass.	Senior Advisory Officer and Tea Entomologist; Tea Research Foundation; Research Liaison Officer with Smallholder Authority	Technical Assistants	\$3,000	Director	Research and Extension

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BIOGRAPHICAL SUMMARY OF PARTICIPANTS ATTENDING ISNAR-MMHC WORKSHOP
MILUMBE, SWAZILAND
JULY 9 - AUGUST 3, 1984

NAME	NATIONALITY	HIGHEST DEGREE	SCHOOLING	PRESENT EMPLOYMENT	PARTICIPANT'S MAJOR SUBORDINATES	FINANCIAL RESPONSIBILITY	ACCOUNTABILITY	PREVIOUS EMPLOYMENT
NAIDU, Agha	Mauritius	MSc. ('76)	BS: Agriculture MS: Biometry	Scientific Officer Ministry of Ag. Research and Advisory	NONE	NONE	Divisional Scientific Officer	Assistant to Technical Officer
HUSSEIN, Osman	Sudan	PhD. ('80)	MS: Agriculture Khartoum PhD: Botany California	Director/Senior Plant Breeder, Kenana Research Station Administrative/Research	Administrative body research body	Total budget of station	Director of Agric. Research Corp.	Assistant Researcher Plant Breeder
SHONGE, Gideon	Swazi	MSc ('74)	BS: Agriculture MS: Soil Science	Lecture and Head Dept. of Crop Protection Univ. of Swaziland Teaching & Administrative	Professors and technicians	Budget for IDRC intercropping project and expen- ditures by the department	Dean of Faculty and Vice Chancellor	NONE
MCHA, Augustine	Tanzanian	PhD ('73)	BSc: Veterinary Medicine Univ. of Edinburgh PhD: Genetics Washington State Univ.	Director General Tanzania Livestock Res. Org. Administrative	Chief Accountant Director of Re- search and Planning Director of Ad- ministration	55 mil. Tanzan- ian shilling	to a Council	Regional Vet. Office Director Research Ins. Principal Research Officer
NGOND, Arnold	Tanzanian	BSc.	BS: Agriculture Univ. of Dar Es Salaam	Ag. Res. Officer (subst- ation) Ministry of Ag.; Agronomy Research, manages 3 trial sites, work program control	3 trial sites with 8, 4, and 4 subordinates on each site, respec- tively	NONE	Head of Section in Head Office	Researcher Farm Manager (field officer)
SEMURUKA, Geoffrey	Tanzanian	PhD ('78)	Diploma in Tropical Ag. BS, MS, PhD in US Univ.	Director Coffee Res. Program, Ag. Res. Organ. Administration, Breeder	5 section heads	All coffee res. funds	Director of Res. Institute	Plant Breeder Assistant Director of Research (coordinator of all crop res.)
MKUMBIZAKE, Vincent	Uganda	MS ('73)	BS: Agriculture India MS: Agriculture Makerere University	Geneticist/Plant Breeder Ministry of Regional Cooperation (research, administrative, super- visory)	5 heads of sections	Canadian \$80,000 and all other accounts	Permanent Secretary Ministry of Regional Cooperation	Breeder, Officer-in- charge of Project
CHIZAKA, George	Zambian	PhD ('80)	Doctor of Veterinary Medicine: Ukrainian Ag. Acad. PhD: African Trypan Univ. of Glasgow	Asst. Director of Veterinary and Tsetse Research; Administra- tion and Research in- cluding international projects	Senior Vet. Res. Off. who is in charge of all head sections	1.5 million (about U.S. 1.36 million)	Permanent Sec. Ministry of Ag. Accounts Committee of National Assembly	District Veterinary Officer Provincial Veterinary Officer Veterinary Officer at Headquarters Senior Veterinary Res. Officer

BIOGRAPHICAL SUMMARY OF PARTICIPANTS ATTENDING ISNRA-UMC WORKSHOP
MILUMBE, SWAZILAND
JULY 9 - AUGUST 3, 1984

NAME	NATIONALITY	HIGHEST DEGREE	SCHOOLING	PRESENT EMPLOYMENT	PARTICIPANT'S MAJOR SUBORDINATES	FINANCIAL RESPONSIBILITY	ACCOUNTABILITY	PREVIOUS EMPLOYMENT
SIKANDI, Josy	Zambian	MS ('82)	Moscow Institute of Irrigation and Drainage	Officer-in-charge, Irrigation; Research Team Leader, National Research Station Advisory, Administrative	office heads, administration staff and farm managers	K \$75,000 (collect revenue on farm produce)	to an individual	Water Technologist Irrigation Research Engineer
MUSHMEI, Christopher	Zimbabwe	MSc. ('81)	BS: University of Kent MS: Univ. of Southampton	Research Officer Ministry of Ag. Research Research and formulate programs	3 research officers 2 research technicians	NONE	Chief Chemist	Glossinologist
SIBANDA, Simba	Zimbabwean	MS	BS: Animal Science Zimbabwe University MS: Animal Nutrition Aberdeen	Officer in charge of livestock section Grasslands Research Station (research/administrative)	3 research officers	Z\$ 80,000	Head of Station	Biochemist Researcher Manager, feedlot ranch
WINGHURI, Ephrem	Zimbabwean	PhD	MA: Zimbabwe PhD: Western Australia	Head of Agronomy Institute; administrative/research	11 research officers, 6 crop production units	estimates and expenditures of total institute's budget	Assistant Director Crop Research Div. Ministry of Ag.	Principle Research Officer

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LIST OF ISNAR TEAMS AND CASE WRITERS

COUNTRY STUDIES

Zimbabwe

Paul Bennell	Research Fellow, ISNAR
N'Guetta Bosso	Consultant, Ivory Coast
Byron Mook	Senior Research Officer, ISNAR

Sudan

Huntington Hobbs	Senior Research Officer, ISNAR
Ghazi Hariri	Senior Research Fellow, ISNAR
Robert I. Ayling	Consultant (U.S. Dept. of Agriculture)

Cameroon

Marie de Lattre	Research Officer, ISNAR
Rudolf Contant	Senior Research Fellow, ISNAR
Jean-George Doumbe	Research Officer, ISNAR
Oscar Cordeiro,	Director General, Douala Station, PAID

CASE STUDIES

Bennell, Paul. 1983	"Conditions of Service for Agricultural Research Scientists in Nigeria: What Room for Manoeuvre?"
Bennell, Paul. 1983	"The Nile Valley Project: A Unique Model of International Cooperation?"
Bennell, Paul. 1983	"Manpower Planning for Agricultural Research in Kenya."
de Lattre, Marie. 1983	"Visitors to Ekona: A Communication Exercise."
de Lattre, Marie. 1983	"Budgeting at Ekona."
de Lattre, Marie. 1983	"Cashew Nut Research in the Tanzanian Agricultural Research Organization."

de Lattre, Marie.
1984 "Les Vehicules.

de Lattre, Marie.
1984 "L'Approche du Programme National d'Amelioration de la
Pomme de Terre au Rwanda"

(Huntington Hobbs provides supervision in case study writing.
Jean-George Doumbe serves as a research in case writing.)

REFERENCE

- ISNAR Grant Agreement with Attachments AFR-0445-C-55-2077-00 dated 9/30/82 as Modified 3/18/83.
- ISNAR Various working budgets and/or working papers.
- ISNAR First Technical Report - Grant NO. AFR-0445-G-SS-2077-00
Period Covered: Beginning Of Project Through Sept. 30, 1981
- ISNAR Second Technical Report - ACC-506/511/02
Period Covered: October 1, 1983 - December 31, 1983.
- ISNAR Third Technical Report - Grant No. AFR-0445-G-SS-2077-00
Period Covered: January 1, 1984 - March 31, 1984
- ISNAR Fourth Technical Report - Grant No. AFR-0445-G-SS-2077-00
Period Covered: April 1, 1984 - June 30 1984.
- ISNAR 1982 "A Proposal: To Strengthen the Management of Agricultural Research in Africa".
- ISNAR 1983 "Training Requirements for Agricultural Research Management in Africa: A Case Study of the Department of Research and Specialist Services in Zimbabwe" The Hague, Netherlands
- ISNAR July 1983 Workshop Evaluation Summary. Agricultural Research Management. ESAMI-ISNAR.
- ISNAR 1984 "Profiles: The Professional Staff of ISNAR, 1984" The Hague, Netherlands
- ISNAR 1984 "1983 Annual Report" The Hague, Netherlands
- ISNAR April 1984 "ISNAR in the Eighties (ISNAR's medium-term program projected from its first three years. International Service for National Agricultural Research. The Hague, Netherlands.
- Korten, David C. 1983 "The Management Institute in Transition." In Bureaucracy and the Poor, ed. by David C. Korten and Felipe B. Alfonso. West Hartford, Connecticut: Kumarian Press, pp. 224-237. See also "Addendum: A Commentary by Henry Gomez," pp. 238-240.
- Paul, Samuel 1983 "Training for Public Administration and Management in Developing Countries: A Review." World Bank Staff Working Paper Number 584 (Management and Development Series Number 11).
- Waterhouse, Price March, 1984 Quarterly Financial and Progress Reports. Audit Statement 12/31/83

- Wyckoff, Barbara "Statement of Work for Mid-Project Evaluation."
July, 1984 A.I.D. Project No. 698-0445 "Strengthening the
Management of Agricultural Research in Africa: A Staff
Development Approach" executed by the International
Service for Agricultural Research (ISNAR)
- Wyckoff, Barbara "Trip Report - International Service for National
July 11, 1984 Agricultural Research (ISNAR) - Strengthening African
Agricultural Research: A Manpower Approach (698-0445).