# SEMI-ARID FOOD GRAINS RESEARCH AND DEVELOPMENT

# PROJECT EVALUATION

USDA/OICD Team

September 3, 1984

Washington, D. C.

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# PREFACE

The SAFGRAD project is a valient effort to apply research technology to the problems of major food grains and grain legumes produced by the farmers in the semi-arid regions of Africa and pass the productive results to these farmers through an active extension program in each country. SAFGRAD was established under the umbrella of OAU to coordinate project activities and better utilize the limited number of scientists scattered among these countries.

Unfortunately those in administrative positions often become impatient over the seeming absence of postive results. Biological cycles require time for maturation and extensive testing. It also takes time to develop the human organization needed to conduct research, test the results and extend only proven technology. It is difficult to place a value on such organization or to fully estimate its long term worth. SAFGRAD has the major elements of such an organization. Under the highly respected leadership of the OAU/STRC Coordination Office, the base exists for developing and organizing the professional talent to focus on the critical food problems of semi-arid Africa.

To evaluate a project that aims to accomplish so much in so many countries in so few years was a major challenge. The evaluation team composed of very competent professionals with many years of experience looked at the various aspects of the project. Though the reports has been closely edited, it is long. Hopefully the more detailed discussions will have value to those involved in project management and the designers of the follow-on project. For those with less interest in project details, the executive summary, major conclusions and recommendations will suffice.

Although the draft report was written prior to our departure from Ouagadougou, the editing and finalizing the report has been the responsibility of the team leader. An earlier draft was circulated to evaluation team members and those involved in project management. Those suggestions received have been considered and included where feasible. It is indeed unfortunate that the team could not reconvene to discuss this report. If there are inconsistencies and errors in the report, the fault is mine.

This final report with minor changes, is issued after a presentation/discussion meeting with Africa Bureau personnel on August 7, 1984.

Donald R. Mitchell

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Washington, D. C.
September 3, 1930

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## ACRONYMS

| | |
|---|---|
| CC | Consultative Committee (of SAFGRAD) |
| CDA | Cooperation for Development of Africa |
| CILSS | The Permanent Interstate Committee for Drought Control in the Sahel |
| CIMMYT | International Maize and Wheat Improvement Center |
| CNAR | National Center for Agronomic Research, Bambey, Senegal |
| FSU | Farming System Unit (Purdue University Contract) |
| FSR | Farming System Research |
| IAR | Institute for Agriculture Research, Ahmadu Bello University, Samaru, Nigeria |
| IARC | International Agriculture Research Center |
| ICRISAT | International Crops Research Institute for the Semi-Arid Tropics |
| IDRC | International Development Research Center (Canada) |
| IFPRI | International Food Policy Research Institute |
| IITA | International Institute of Tropical Agriculture |
| INSAH | Institute of the Sahel |
| IRA | Institute for Agronomic Research (Cameroon) |
| IRAT | Institute for Research in Tropical Agriculture and Food Crops |
| ISC | ICRISAT Sahelian Center, Niamey, Niger |
| ISNAR | International Service for National Agricultural Research |

| | |
|---|---|
| IVRAZ | Voltaic Institute for Crop and Animal Husbandry Research (Upper Volta) |
| OAU/STRC | Organization of African Unity/Scientific, Technical and Research Commission |
| PES | Project Evaluation Summary |
| SADCC | Southern Africa Development Coordination Conference |
| SAFRAD | Semi-arid Food Grain Research and Development Project |
| SODEVA | Agricultural Extension and Development Corporation (Senegal) |
| SODOCOTON | National Cotton Development Authority (Cameroon) |
| TAC | Technical Advisory Committee (to CC) |

## EXECUTIVE SUMMARY

SAFGRAD was initiated in 1977 as a $13.9 million, five year project. Funding was later increased to $19.1 million and the project completion date extended to March 31, 1985. Supporting research on three food grains (sorghum, millet and maize) and two grain legumes (cowpeas and groundnuts), the project also concentrated upon development and promotion of cultural practices appropriate to small farm, low-input, semi-arid farming systems Primary project activities included regionally coordinated research and support to national research, field trials and outreach programs to extend improved technology to farmers. The Organization of African Unity Scientific, Technical and Research Commission (OAU/STRC) served as the coordinating organization. Membership initially included 18 African countries, but later increased to 25 with three more currently applying for membership.

Although a grant agreement was signed with the OAU/STRC in Lagos, Nigeria, an OAU/STRC Coordination Office was established in Ouagadougou, Upper Volta for administration of the project. Less than ten percent of project funds were actually managed by this office. Nearly 75 percent of the funds were in direct contracts between AID and IITA, ICRISAT, Purdue University and individual contracts for Accelerated Crop Production Officers (ACPO). OAU/STRC was not a party to these contracts although the International Coordinator approved project implementation documents.

IITA did research on maize and cowpeas with researchers working both at Ibadan, Nigeria and Kamboinse, Upper Volta. Considerable progress was made in developing improved cowpea varieties. In terms of project objectives the maize breeding program was less successful. IITA concentrated upon breeding and selecting for varieties which do well under moderate levels of fertility (70-40-30 kg/ha) and soil management, rather than under the low input conditions of small farmers in the project area. Varieties developed by IITA yield well under "good" conditions, but generally have not done as well as local varieties under the stressful conditions found in farmers fields.

ICRISAT had responsibility for research in sorghum and millet. The Project Paper had included groundnuts, an ICRISAT mandated crop, but research in groundnuts was never included in their contract. A three man sorghum/millet research team was stationed at the Nigerian International Agriculture Research Center (IAR) at Samaru, Nigeria. One person, a soil and water management scientist, was stationed at Kamboinse, Upper Volta. A regional sorghum/millet trials coordinator to work in eastern and southern Africa was added to the ICRISAT/SAFGRAD team in September 1982. Rapid turnovers of staff at Samaru resulted in less progress than desired in developing improved varieties and agronomic practices for sorghum and millet. The soil scientist at Kamboinse conducted useful soil and water management research. He could have done more if he had been provided necessary research equipment as specified in his contract with ICRISAT.

The Farming Systems Unit provided under a contract with Purdue University, after an ineffective beginning, altered course and is now providing some valuable information on the national level for Upper Volta. Aside from development of FSR methodology, the research has had little impact on a regional basis.

Five ACPOs are currently located in member countries (Mali, Senegal, Togo, Cameroon and Upper Volta). They provide the linkage between research and extension. All operated somewhat differently, but are generally involved in on-farm research trials and work with both national research and extension programs. Three ACPOs are expatriates and two are local nationals. The Togo ACPO is financed by French aid; the other four by AID. The work of the ACPOs in general is one of the strong aspects of the project.

Management of the OAU/STRC Coordination Office in Ouagadougou, has made a considerable change in style of operation largely due to a critical audit conducted in mid-1982. Because of the audit, the project was brought to a virtual stand-still while both AID and the incumbent International Coordinator attempted to explain discrepencies. Now that the new International Coordinator and Director of Research are in place, a noticable change of direction and sense of purpose has taken place. The USAID/UV Mission is working closely with them to ensure that acceptable accounting procedures are followed. Two internationally qualified accountants have been hired to manage and control project funds. In addition, the Technical Advisory

Committee (TAC) and the Consultative Committee [illegible] after a slow start are beginning to [illegible] in providing technical and policy guidelines.

[illegible] too early for conclusive research results [illegible] widespread extension to farmers, SAFGRAD has achieved the following major accomplishments:

- o established an [illegible] Coordination office staffed by professionally [illegible] staff with international accepted management and accounting procedures that provides leadership to researchers in member countries and attracts funds from international donors to facilitate research;
- o held 12 technical workshops attended by an average of 58 African scientists from 12-20 countries to exchange ideas and information and plan variety trials;
- o conducted monitoring tours, small groups of 6-8 scientists from neighboring countries, to conduct a peer review of research work and encourage professional excellence;
- o a newsletter is sent to cooperators in the SAFGRAD network to keep them abreast of project activities;
- o provided long term training to 21 research scientists and short term training for 70;
- o established ACPO positions in five countries to provide a bridge between research, extension and farmers---other countries are requesting ACPO positions, evidencing a growing acceptance;



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- o provides funds to ICRISAT and IITA to focus research efforts on the small farmers in semi-arid areas;

Though this evaluation is largely a terminal evaluation, plans are underway for a follow-on SAFGRAD II project. We are of the opinion that a strong foundation exists in the OAU/STRC Coordination Office that could be developed into an effective facilitator for research activities in member countries. A number of suggestions are made for the design team. Perhaps the most fundamental issue is a recognition by AID of the need for developing an institution within OAU/STRC to: (1) establish broad policy guidelines for research activities common within the region, (2) seek necessary funding from international donors, (3) organize and/or finance conferences and workshops that will develop professionalism and camaraderie among professional colleagues in both extension and research and (4) disseminate technical information among member countries. There is a role for SAFGRAD---it needs to be carefully designed and provided with the resources necessary to do the job.

## MAJOR CONCLUSIONS

1. The Project Paper designed a well planned technical program to accomplish research objectives. However, it basically ignored the issue of institutional development. As a result, the project has had some serious management problems. If the project had an explicit institutional development objective, a more positive approach may have been taken to create within OAU/STRC a capability to manage

AID and other donors' resources to coordinate research activities of member countries. Despite poor organizational design, the project has succeeded in achieving most project objectives.

The new International Coordinator and Director of Research have the respect of their professional colleagues and are assuming responsible management of the SAFGRAD program.

3. The Technical Advisory Committee (TAC) and the Consultative Committee (CC) of SAFGRAD after a slow start have begun to function along the lines planned in the project paper. The TAC has met three times and is scheduled to meet again in July 1984. The CC met twice with another meeting scheduled in April 1984. These committees provide a structure for respresentatives of African member countries and donors to influence program content and to establish policies and mechanisms for carrying out their decisions.

4. While AID signed a grant agreement with OAU/STRC for nearly all of the SAFGRAD project funds, OAU/STRC until recently had responsiblity for managing only about ten percent of all SAFGRAD funds. Most of the funds are committed in direct contracts between AID and IITA, ICRICSAT and Purdue University. OAU/STRC is not a party to these contracts, although they approve project implementation orders.

5. The 1982 AID internal audit was a major trauma for both AID and SAFGRAD. This resulted in a number of changes in the management of the OAU/STRC Coordinator's Office in Ouagadougou. For a relatively small portion of the project

funds, the OAU/STRC office was virtually paralyzed for over a year. USAID/UV and SAFGRAD devoted an excessive amount of time to "clearing" the audit recommendations. As a direct result of the Audit, the USAID/UV Mission has been working closely with the OAU/STRC to develop satisfactory financial management procedures. Two chartered accountants have been hired by the OAU/STRC to manage the funds of AID and other donors.

6. The IARCs have had some success in developing improved grain varieties. It is much too soon to see the results. Promising lines with resistance to pests and diseases show considerable potential.
7. Soil and water management problems are not being adequately addressed and must receive increased emphasis.
8. The Accelerated Crop Production Officers (ACPO) are one of the bright spots in the project. They serve as a major link between research and national extension programs. Only five ACPOs are currently employed, four of them funded by USAID.

## RECOMMENDATIONS

With only a year remaining in the project, little can be done to change project direction. We have, therefore, restricted our recommendation to those that project management can address.

1. Cowpea breeding and agronomic research should be continued at present or increased levels with more emphasis on breeding plant types desired by farmers, e.g. indeterminate plant with leaves eaten as vegetables.

2. Recognizing that it is too late in the SAFGRAD project to change the maize breeding program, it is strongly recommended that SAFGRAD through the TAC and CC clearly state the objectives of any future maize breeding program and be firm in seeing that the breeding program is being conducted in such a manner as to achieve those objectives.

3. The FSU should be fully staffed with expatriate researchers as stipulated in the Purdue contract and a training officers should be added in 1984 as recommedned in the TAC Report for 1984. If budgetary restrictions preclude hiring a Training Officer, FSU should investigate other sources of technical assistance to enable a process of wider information dissemination about FSU findings and methods to be launched. The centrally funded Farming Systems Support Project (FSSP) could provide short-term technical assistance for training, development of training materials and networking.

4. During 1984-85 the FSU should plan a series of seminars and workshops for various Voltaic audiences to inform them in depth of FSU findings and to get feedback on the perceived value of FSU research to date. The FSU must try to ensure that its efforts and those of other FSR programs (IRAT and ICRISAT) are also presented for joint review and discussion at the national level in Upper Volta.

5. The 1984 work plan should be pursued as indicated with two additions:

   - FSU should specifically seek to work more closely with the IITA cowpea research program;

- o FSU should include female respondants in the village surveys. If appropriate, female interviewers should be hired as soon as possible to facilitate contacts with female agricultural laborers.

6. A number of specific recommendations are made for the ACPO program. Most are suggestions directed at the OAU/STRC Coordination Office.

7. The ACPO program should be vigorously supported by SAFGRAD. All ACPOs need not be financed under SAFGRAD. There are many countries where trained nationals are available to undertake the role of ACPO. SAFGRAD should encourage these countries to create, fund and staff ACPO programs.

8. SAFGRAD should immediately contact ISNAR for assistance in improving its coordination activities with the research and extension organizations of its member countries.

9. Two senior staff members should be added to the personnel of the OAU/STRC Coordination Office. These are: (1) a Director of Training and Extension and (2) a Planning and Organization Officer.

10. AID should include OAU/STRC as a major party in the negotiation of contracts. This could be achieved by:
    - o Making a grant to OAU/STRC who would then award the contract. As an accompanying measure, AID should assist OAU/STRC in the legal and contractual matters at least in the initial stages, or;
    - o AID could retain the negotiation of the contracts under its responsibility, but include OAU/STRC as a major party and as a co-signer of the contract.

11. The OAU/STRC Coordination Office should explore flexible contractual arrangements to achieve networking of FSR and ACPOs.

12. Efforts should be made to ensure that the various components of SAFGRAD receive the resources that are budgeted in the negotiation of contracts and implementation planning of the SAFGRAD project. Major changes in implentation should correspond to clearly stated policy modification.

13. The preparation of administrative procedures, acceptable to both OAU and AID, should be developed and implemented as soon as possible.

14. OAU/STRC/Lagos should make a clear delegation of authority and responsiblity to the OAU/STRC Coordination Office in Ouagadougou.

# SEMI-ARID FOOD GRAIN RESEARCH AND DEVELOPMENT PROJECT EVALUATION

## Methodology

This evaluation is considered to be a "major" evaluation of the SAFGRAD project. It follows the mid-point evaluation of July 1981 and an AID audit of the OAU/STRC Coordinator's Office issued in November, 1982. While it may be considered an end of project evaluation, the project termination date has been extended to March 31, 1985; therefore another evaluation may be required at that time. The evaluation was requested by project management November 22, 1983 (Ouagadougou 06703). A refined scope of work based on this request is included in Appendix B.

The first members of the evaluation team arrived in Ouagadougou on January 28, 1984. Visits were made to project sites in Cameroon, Togo, Senegal, Mali and Nigeria. For project documentation, we relied on the Ouagadougou USAID Mission and OAU/STRC files. Interviews and many thoughtful discussions with those involved in project implementation helped shape the teams impressions of progress being made. A draft evaluation report was prepared prior to the departure of the team on March 1, 1984. See Appendix H for travel itinerary of team members and contacts.

Team members and major area of responsibility included the following:

Jocelyn Albert, Farming Systems/Social Aspects

Solomon Bekure, Agricultural Economist

Elvin F. Frolik, Research Administration

Connie McKenna, Extension/Training

Donald R. Mitchell, Team Leader

Andre Poirier, Administration/Management

Emmy Simmons, Farming Systems/Agricultural Economics

Howard M. Taylor, Research

The team was ably provided logistical and administrative support as well as considerable information about project activities by Roger Bloom, USAID/UV Project Officer, John Becker, USAID/UV Agriculture Development Officer and Robert Gray, AID/W/AFR/RA.

Primary efforts of the evaluation team were directed towards analyzing past and present actions in reaching project objectives. From this base, the team attempted to raise some of the major issues that need to be addressed in the design of a follow-on SAFGRAD II project, contemplated by AID and OAU/STRC.

## Project History

AID has a long history of assistance to regional food crop research, beginning in 1964 with maize, sorghum and millet research in East and West Africa. In 1969 this research was separated into two regional projects, one with the East Africa Community and the other in West Africa with the Institute for

Agricultural Research (IAR) at Ahmadu Bello University, Samaru, Nigeria. The West Africa project was developed in cooperation with the Organization for African Unity Scientific, Technical and Research Commission (OAU/STRC) known as Joint Project 26 (JP 26) and was the beginning of multi-donor research efforts in the region. JP 26 terminated in 1976. The current project became operational in 1977 and is known as JP 31 in OAU/STRC and as project number 689-0393 in AID.

The Semi-Arid Food Grains Research and Development Project (SAFGRAD) was planned to support improvements in three cereal grains (sorghum, millet and maize) and two legumes (cowpeas and groundnuts) along with cultural practices appropriate for small farm semi-arid farming systems and to promote their adoption and use by farmers. Project activities were to fall into two broad areas: (1) regionally coordinated research at three African research centers and (2) support of national research, field trials and outreach programs to further develop, test and extend improved technology to farmers.

To augment crop research, support was to be provided to key research institutions in the region including the IAR; the Centre National de Recherches Agronomiques (CNRA) at Bambey, Senegal and; the Kamboinse Research Station at Ouagadougou, Upper Volta. These three research centers were seen as representative of the region's ecological zones and had on-going programs in cereal and grain legume research. The scientific and technical assistance was to be provided by the International Crops Research Institute

for the Semi-Arid Tropics (ICRISAT), the International Institute of Tropical Agriculture (IITA) and the Institut de Recherches Agronomiques Tropical et des Cultures Vivrieres (IRAT).

A regional Farming System Unit (FSU) was to be established to study crucial issues related to acceptance of improved technologies by farmers. A US university was to be contracted for this effort.

Research objectives for the project were stated as follows:

1. Varietal improvement with an emphasis on breeding desirable characteristics and resistance into promising varieties with broad applicability in the region.
2. Farming systems research to identify approaches and improved technologies which are best suited to small farmers.
3. Soils management research aimed at maintaining and increasing soil fertility.

To facilitate the exchange of information between researchers in the region, the project was to support regional scientific conferences, technical publications and information, uniform crop variety trials, training for African scientists and technicians and other forms of regional cooperation.

To provide the catalytic link between researchers and the farmers, positions for Accelerated Crop Production Officers (ACPO) were established. The ACPOs were to work with national research and extension organizations in conducting field trials. It was planned that ACPOs would be expatriates with provision that participating countries could provide their own ACPOs if

suitably trained individuals were available. The project paper anticipated placing an ACPO in each of the 18 participating countries.

To perform the vital role of regional coordination and administrative support services, a grant agreement was to be signed between AID and OAU/STRC. Program and policy guidance was to be provided by a Consultative Committee (CC) comprised of African national research administrators and representatives of donor and international research institutions. A Technical Advisory Committee(TAC) would do much of the staff work and provide technical advice to the CC. The OAU/STRC would serve as the secretariat for both committees.

Total project cost were estimated to be about $21.4 million over the five year life of the project. Of this amount AID would finance $13.9 million, other donors roughly $6.0 million and the host governments about $1.5 million. The project paper with a grant total life-of-project cost of $13.9 million was signed March 24, 1977. The authorization for the first increment of funding for $1,730,000 was signed April 28, 1977.

The project was amended in FY82 to extend the PACD to March 1985 and increase the life of project funding to $16,475,000. Another amendment in August 1983 further extended the PACD to March 31,1987 for training and increased life-of-project funding to $19,169,000.

## MID-POINT EVALUATION SUMMARY

The Mid-Point Evaluation of the SAFGRAD project was conducted during July 1981. The Evaluation Team found the project concept to be an "appropriate response to the technological problem of food production in Africa." However, their major conclusions seemed to be somewhat less optimistic. They concluded:

- Major implementation weaknesses resulted from the inactivity of the CC and TAC with the policy vacuum being filled, in part, by the OAU/STRC Coordinator and the AID Project Officer.
- Most project emphasis had been placed on regional level research with little regard to its relevance to low input small farmers.
- SAFGRAD leadership has seriously neglected the marshalling of research and extension resources in member countries and the coordinating of research and development to attack the problem of increasing food production in the region.
- Revitalization of the CC and TAC was necessary with a relative shift in emphasis from project operation to coordination and integration of research and development resources in the region.
- The permanence of SAFGRAD should be supported by enhancing the role of OAU/STRC relative to that of AID administration.

- SAFGRAD's major emphasis had been on varietal development research.

Major issues in conducting regional research, included:

- Research resources funded by other donors at Kamboinse were not integrated into SAFGRAD.
- Using national research stations as regional research centers was causing problems.
- Emphasis on development of varieties whose full potential require inputs farmers do not have.
- Soil and water research was given insufficient emphasis.
- The FSU was intended to give SAFGRAD a capability for basing its research and development activities on an understanding of the farmer's decision making environment. The FSU team had concentrated its efforts on village level studies in Upper Volta, raising a question about its relationship with the overall regional thrust of SAFGRAD.
- The ACPO was to have two roles: (1) liaison between national and regional level research and (2) liaison between national research and national extension. Each of the four ACPOs was making his own accomodation to this dual assignment.

Comment: Seemingly the evaluation did not trigger a quick response in project management. A PES was not prepared until after it became the subject of an audit recommendation in mid

1982. The PES is dated April 21, 1983. It indicates actions were already being taken on evaluation recommendations though the record is not clear as to when actions were taken. A copy of the PES is included as Appendix C. The 1981 evaluation did trigger meetings of the TAC and CC in October, 1981 when the draft Mid-Term Evaluation was the major topic of discussion. However audit issues and responses became the primordial management interest of the SAFGRAD Coordination Office and of AID between late October 1981 and mid 1983. There was insufficient follow-up of the mid-project evaluation.

At the time of our visit in February 1984, Dr. Joseph M. Menyonga had assumed the duties of the OAU/STRC Coordinator in May 1983; Dr. Taye Bezuneh had become Director of Research in November 1983. The CC had met in November 1983 with another meeting scheduled in April 1984; the TAC met in January 1984 with another meeting scheduled in July 1984. A positive attitude permeated those working on SAFGRAD, a feeling that they were beginning to control events rather than being controlled by events. In the pages that follow, we attempt to evaluate progress made in the major project components---Research, Farming Systems Unit, Accelerated Crop Production Officer, Training, a review of administration and financial management followed by evaluation of SAFGRAD activities. Each section will include conclusions and recommendations.

While not truly a part of the evaluation, we were asked to make suggestions for a possible SAFGRAD II project. These suggestions are included in the final section of the report.

# RESEARCH

## Introduction

At the heart of the SAFGRAD project is the development of improved varieties and cultural practices of sorghum, millet, maize and cowpeas to be used by low input small farmers in the semi-arid areas of Africa to increase the production of these food grains. Groundnuts were included in the original project paper, but research was never funded nor included in a research contract. These varieties and practices were to be developed through regionally coordinated research conducted by International Agricultural Research Centers (IARCs) and through support to national research and development programs. Discussion here will be limited to the commodity research program, with farming systems research discussed separately.

The commodity research contracts recognized the crop specific mandates of the IARCs. A contract for maize and cowpea research was developed with IITA while ICRISAT signed a contract to do sorghum and millet research. According to the project plan, performance under the contracts was to be evaluated by the following criteria:

- Cereal and grain legume varieties and cultural practices which provided increased production and profitability under small farm conditions.

- Cropping systems to maintain soil fertility.
- Physical demonstration of new technologies.
- Certain specific varietal characteristics related to growth cycle, pest and insect resistance.
- Evidence of regional coordination among African researchers.

The Mid-Term Evaluation Team recommended:

> The reorientation of the SAFGRAD thrust which.....would de-emphasize, relatively, SAFGRAD's direct involvement in research and emphasize....SAFGRAD's coordinating and leadership role.....centers for regional level research, ACPOs and FSU, [they] do not, by themselves, constitute a regional research network.....the regional network concept has so far not been exploited sufficiently in achieving SAFGRAD's purposes.

## Maize and Cowpea Research

### IITA Contract

The contract between AID and IITA specified that IITA would plan and conduct research on:

- Improved maize production technology for adverse conditions including low soil fertility, periods of drought, presence of harmful insects and diseases and the indigenous practices of mixed cropping;
- Major insect programs of improving maize and cowpeas in their different production technologies and;
- Selection of varieties that most effectively utilize available nutrients and water and those which have a superior performance in appropriate cropping systems.

The contract further states:

> The contractor staff will join the National Research Center staff (including Africans and expatriates) at Kamboinse, Upper Volta and selected off-station sites to plan and conduct research directed toward the development of high yielding, disease resistant, insect tolerant, drought resistant, nutritious varieties of cereal and legume food crops.....The contractor staff will assist/guide Accelerated Crop Production Officers (ACPOs) and National Research/Extension Officers in planning and implementing a network of field trials throughout the project area utilizing the research results from the national and regional centers.

The contract provided for a maize breeder, an entomologist, a soil fertility agronomist and a maize production agronomist. In addition, IDRC (Canada) funded a cowpea breeder who worked closely with the IITA/SAFGRAD contract. These five individuals were divided into two teams: (1) a maize breeder and maize agronomist and (2) a cowpea breeder and cowpea agronomist. The Entomologist worked about eighty percent with the cowpea team and about twenty percent with the maize team. Although the IITA contract called for the entomologist to conduct some research on insects of sorghum and millet, the entomologist reported he had not done so.

One of the first tasks facing the IITA team when it arrived in 1978 was to develop facilities for research. The scientists cleared 22 hectares of land at the Kamboinse Research Station, located 13 kilometers from Ouagadougou. The land was ditched, drained or terraced. Two laboratory/office buildings were constructed as well as work sheds and two insect houses or screenhouses---all with SAFGRAD funding.

## Maize Research

The maize breeder has released two varieties in Upper Volta and has tested these and several other varieties in one of two regional trials. Two varieties, SAFITA 2 and SAFITA 104, have been released. Other promising varieties developed by IITA/SAFGRAD include SAFITA 2 (Pool 16), TZE 3 and TZE 4. In village trials conducted by the Farming Systems Unit (Purdue University), SAFITA 2 produced more than the locally prevalent variety under "good" conditions but less than the local variety under "stressful" conditions. In addition, the entomologist has conducted an initial screening to identify termite resistant lines of maize.

The Maize Agronomist has shown that yield of maize increases as depth of plowing increases, especially when maize is grown in the upland positions of the topo-sequence. He has also shown that yields of both local and improved varieties of maize can be increased substantially by adopting improved agronomic practices such as maize followng cowpeas, tied ridges and phosphorus fertilization. Cowpeas increased yields of the subsequent maize crop in an amount equivalent to adding 30 kg/ha of nitrogen. He has had some success in water management experiments, such as, cultivation for breaking the soil crust, terrain irregularities to slow down run-off, site selection, use of crop residues for mulch, use of early maturing varieties, appropriate planting dates and plant densities.

The Mid-Point Evaluation Team expressed a major concern about appropriateness of the specific site used by the IITA/SAFGRAD maize breeder for his on-station trials. The site is well supplied with water and nutrients and does not typify farm sites (except for a very small fraction of the land surface occupying similar hydromorphic sites). Sites at Kamboinse were not changed in response to the mid-term evaluation. Correctness of the mid-term concern can be shown readily by examining 1982 Regional Upper Volta Variety Trials---RUVT 1 and 2. In the RUVT 1 trials conducted at eleven sites, SAFITA 2, SAFITA 104 and the local check varieties averaged 3482, 3083 and 3883 kg/ha, respectively. In the RUVT 2 trials conducted at nine sites, SAFITA 104 averaged 4178 kg/ha while the local checks averaged 3767 kg/ha; however, when results from the Kamboinse site were eliminated, the averages were 3828 and 3711 kg/ha, respectively. In comparison, IRAT 178 averaged 4311 kg/ha across the eight sites.

## Evaluation of Maize Variety Trials

In 1983, SAFGRAD assembled two types of uniform trials of maize (early and medium maturity) and distributed seed to 24 national programs. Results were received from about fifty percent of the tests. To help evaluate the entries and provide a learning experience for participants, SAFGRAD conducts "monitoring" tours consisting of six to eight national scientists along with IITA/SAFGRAD and IITA/Ibadan scientists, visiting research plots in five to six countries. The personnel make-up

of these monitoring tours and the countries visited are rotated annually. Through these tours and individual visits by members of the SAFGRAD Team, most of the countries participating in maize research are visited annually.

SAFGRAD holds annual workshops with national investigators to discuss the past year's results and to formulate plans for the coming year, especially with respect to entries to be included.

## Other Regional or International Maize Research

Maize is grown in varying amounts, at least in the more favorable areas, throughout the semi-arid regions of Africa. The present agencies with more than national responsibility for maize research in the semi-arid regions of Africa, in addition to SAFGRAD, include the following:

IITA/Ibadan: Has an extensive research program by core staff, including four breeders who conduct regional tests. The center has contracts for conducting research on various crops in national programs in Cameroon, Rwanda and Zaire.

CIMMYT: Has world-wide responsibility for maize research and conducts extensive international tests. Has one breeder with another to be added in Nairobi. Also has a breeder stationed at IITA/Ibadan.

IRAT: Has a maize research component and conducts regional trials.

INSAH: Has no breeding program, but conducts regional trials.

FAO: Has no breeding program, but conducts regional trials.

All of the above six agencies are involved in regional (international) testing of maize. They do not all cover the same portion of the semi-arid region covered by SAFGRAD. Some have more than one kind of test at each location, with each participating country designating the number of locations to do the testing. Seed, planting plans and data sheet forms are provided by the agencies to the participating national programs.[1] Following harvest, copies of the data are submitted to the respective agencies. There they are analyzed statistically and the results are sent back to the cooperating countries.

Of the above agencies, SAFGRAD, INSAH and IRAT hold annual workshops to which the national investigators are invited. The past year's results are discussed and plans are formulated for the coming year, especially with respect to entries to be included.

The problem of conflicts between SAFGRAD and other agencies in conducting and coordinating research was discussed by the Mid-Term Evaluation Team in considerable detail in the case of CILSS/INSAH.[2] The differences appeared to be rather serious. A meeting was held in December 1980 with the purpose of avoiding

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[1]This is the general pattern of conducting trials on a regional or international basis. There may be some deviations from the system by individual agencies.

[2]Mid-Term Evaluation pp. 19 and 20.

".....duplication in agricultural research in the member states belonging to both CILSS and SAFGRAD." This meeting apparently accomplished little with respect to INSAH/SAFGRAD division of responsibilities and relationships.

The Mid-Term Evaluation Team's suggested solution was that:

> INSAH should coordinate research, but not perform it. If INSAH comes up with necessary funds SAFGRAD should turn its sights elsewhere.

The matter was further considered and recommendations for corrective measures were adopted at the November 1983 meeting of the CC and at the January 1984 meeting of TAC.

Cowpea Research

SAFGRAD/IITA has a full-time agronomist and about eighty percent of an entomologist's time devoted to this crop. In addition an IITA/IDRC breeder is a member of the team. All are located at Kamboinse. The extent of regional activities by other agencies is not fully known. We were told that IITA/Ibadan, SAFGRAD and EEC program funding cover all of the Africa cowpea research.

In 1983, SAFGRAD distributed seed for two types of trials, one consisting of medium maturing varieties and the other of early maturing varieties. These were sent to 18 countries. In addition a test consisting of varieties with promising striga resistance was distributed to five countries. Seven national programs are conducting cowpea trials to check performance under minimum insecticide umbrellas (two sprays only). In 1983, there were three national programs in cowpea management trials, and six in cowpea/maize relay trials. The cowpea team at Kamboinse has

operated primarily as a unit involved in screening varieties and breeding lines for pest resistance and days to maturity. The team has made substantial progress. Thrip, bruchid, maruca and striga resistant or tolerant breeding lines have been identified. Breeding materials have been found resistant to two earlier identified aphid biotypes as well as the new biotype "K".

The sixty day maturity cowpea developed by IITA represents a major advance for the Sudan and Sahel Savannas. This variety allows the crop to mature and produce several hundred kg/ha of cowpeas during years when the rainy season is short. Normally, if the cowpeas do not mature within about five days after the rainy season ends, complete yield loss often occurs on the shallower soils of the topo-sequence.

Although the Mid-Term Evaluation Team indicated they questioned the value of research on a crop prone to insect and disease damage, the present evaluation team is encouraged by the excellent progress made to date. We would, however, suggest that breeding include indeterminate plant types that produce leaves eaten as vegetables by many people. Emphasis has been placed on seed production rather than the production of vegetation that may be more highly preferred by the African farmer.

## Sorghum and Millet Research

### ICRISAT

Primary research for sorghum and millet was included in the ICRISAT contract with site locations at Samaru, Nigeria where the breeding work was to be conducted and soil and water management research to be done at Kamboinse, Upper Volta.

Samaru, Nigeria

The plant breeder has screened about a thousand lines of tropical origin sorghum and then tested selected lines for yield and mold resistance. Working with the entomologist, he found significant varietal differences in stem borer resistance in both seedling and mature plants. He also found significant varietal differences in shootfly resistance. Several varieties were found with some resistance to leaf spot, anthracnose, sooty stripe or seed mold. Striga resistant lines of sorghum and millet have also been identified.

The sorghum breeder collected 203 entries from northern Nigeria to test the hypothesis that hybrid races developed under natural selection have high yield and other attributes. The collection showed some lines with stem borer resistance but not with leaf spot resistance. Regional variety trials were set up and seed was distributed for both sorghum and millet.

Significant progress has been made in fitting relay or intercropping systems using sorghum, millets and cowpeas.

The Evaluation Team suggests that the whole question of ICRISAT's participation in SAFGRAD at Samaru should be examined very carefully if a SAFGRAD II project is contemplated. The SAFGRAD component in West Africa is split between two locations with no apparant effort to use the four scientists as a team. The Samaru unit has had considerable staff turnover, much of it due to difficult living conditions peculiar to Nigeria. Even so, maize production is moving northward in Nigeria and sorghum production is trending toward commerical scale production rather

than that produced by the small farmer targeted by SAFGRAD. IAR at Samaru has a well-qualified sorghum breeder who could fill the commercial-type breeder role if ICRISAT scientists were withdrawn from Nigeria. Most of ICRISAT's millet research work will likely be moved to their new millet center at Niamey, Niger. Further, ICRISAT has not reported their sorghum and millet work in a timely manner nor in a manner where SAFGRAD countributions are easily identifiable.

Kamboinse, Upper Volta

Soil and water management research has made considerable progress even with limited resources. Some examples include:

Microcatchments: A microcatchment basin using a 0.5 meter row width yielded 5.2 tons/ha for an improved variety of sorghum and 3.0 tons/ha for a local variety. A microcatchment basis using 1.0 meter row widths yielded 2.6 tons/ha of Souna 3 millet. It was also concluded that the farmer's energy to construct basins was best expended when utilized on high yielding varieties of sorghum and millet.

Mulching: Yield is improved significantly when mulch is applied as a surface treatment. The mulch slows run-off, reduces soil surface destruction due to raindrop impact, reduces evaporation and increases infiltration rate. To be effective, the mulch must be applied at or soon after planting.

Weeding: Microcatchments reduce the amount of time required for weeding. If microcatchments and mulches are both used, weeding is necessary only in "Hot spots" of weed activity.

Animal Traction: An animal traction program has been initiated. Oxen, donkeys and operators have been trained to construct microcatchments, terraces, roads and to smooth field plots.

Water Harvesting: Technicians have been trained to survey and layout runoff plots to measure effects of surface treatment on losses of water, nutrients and applied chemicals.

The soil and water management scientist located at Kamboinse has not had enough scientific equipment to make the routine measurements required for publication in referred journals. He is to be commended for the results he has obtained under the circumstances. The Mid-Term Evaluation stressed the need for more empahsis on soil and water management research. The present Evaluation Team still sees insufficient emphasis on soil and water management, both in the ICRISAT and IITA management at Kamboinse.

Cooperation between the IARCs is somewhat less than would be desirable. For example, an excellent publication by SAFGRAD/IITA on SAFGRAD research in Upper Volta makes no mention of soil management research apparently because it was done by SAFGRAD/ICRISAT---on the same station.

## Related Programs of ICRISAT

ICRISAT has a number of programs in Africa dealing with the same commodity crops included under SAFGRAD that should be noted. In addition to national programs in Upper Volta, Mali and Sudan, ICRISAT has or plans to implement the following regional programs:

> ICRISAT Sahelian Center (ISC): A major research center for the Sahel, located at Niamey, Niger. This center will conduct research on millet and groundnuts and will include livestock in cooperation with ILCA. It has a staff of ten professionals and is still growing. It will service millet research for western Africa from northern Nigeria and Senegal eastward (including northern Cameroon) to western Sudan.

SADCC: A recent major development is the ICRISAT/SADCC project with headquarters in Zimbabwe. This program involves the countries of Swaziland, Lesotho, Zimbabwe, Botswana, Tanzania, Angola, Mozambique, Zambia and Malawi. A staff of eight professionals is planned with initial work to be on sorghum and millet. ICRISAT/SAFGRAD at Nairobi will terminate its work in southern Africa and operate principally in eastern Africa.

Sorghum Program for Western Africa: Consideration is presently being given by ICRISAT to establish a major sorghum research program in western Africa to combine and expand their research efforts in this region. Locations being considered include Upper Volta, Mali, Nigeria, Senegal and Cameroon.

## Inventory of Research Information

In this report the Evaluation Team has attempted to summarize the regional research resources, duplications in programs with other agencies and to a limited extend, shortfalls in meeting research needs, for the commodities and disciplines relating to crops assigned to SAFGRAD. Obviously, the information included cannot be fully inclusive and may in some cases not be entirely accurate. What is needed is a comprehensive inventory of major constraints in farm production, unmet research needs, existing research resources and cases of undesirable duplication.

It is the understanding of the Evaluation Team that CDA is making a continent-wide study to provide as complete as possible picture of the information needed. Such an inventory is an essential first step in utilizing all available resources to address chronic food production problems of Africa.

## CONCLUSIONS

1. It is not reasonable for USAID to expect measurable downstream end product results, such as proven varieties, from plant breeding programs in a five-year program such as the original time period proposed for SAFGRAD. This is especially true in semi-arid locations.
2. Annual workshops for participating national scientists are held annually providing an opportunity to exchange ideas and make plans for the coming year.
3. The maize breeding program at Kamboinse is inconsistant with objectives stated in the Project Paper and has not been directed toward the low input small farmers specified in the USAID/IITA contract. Modest progress is being made toward the goal researchers defined for themselves----high yields with moderate inputs.
4. With six different regional organizations conducting maize variety testing programs there appears to be some unnecessary duplication and over-burdening of national programs to conduct these tests.
5. The cowpea research program of IITA is progressing very satisfactorily.
6. "Monitoring" tours held annually for maize and cowpea researchers are very beneficial in providing an exchange of ideas and helping to upgrade tests.

7. IITA reports their results in a timely manner and identifies them with SAFGRAD funding.

8. The ICRISAT Team at Samaru, Nigeria has made progress in identifying pest resistant breeding lines and in identifying high producing short statured varieties of sorghum.

9. Changing sorghum production patterns in Nigeria raises questions about the advisability of continuing research at the Samaru location.

10. ICRISAT does not clearly identify nor produce timely reports of their results from research supported by SAFGRAD.

11. Soil fertility and water management research was not increased after the Mid-Term Evaluation, despite a strong recommendation to this effect.

12. The centers in existance and those planned will provide an adequate network for sorghum/millet research.

13. No work has been conducted on groundnuts under SAFGRAD as stated in the Project Paper as no funds were provided for this purpose.

## RECOMMENDATIONS

1. Cowpea breeding and agronomic research should be continued at present or increased levels of funding with more emphasis placed on breeding plant types desired by farmers e.g. indeterminate plant with leaves eaten as vegetables.

2. If IDRC (Canada) discontinues their support of the cowpea breeder, the position should be funded under SAFGRAD by AID.

3. Recognizing that it is too late in the SAFGRAD project to change the maize breeding program, it is strongly recommended that SAFGRAD through the TAC and CC clearly state the objectives of any future maize breeding program and be firm in seeing that the breeding program is being conducted in such a manner as to achieve those objectives.

4. ICRISAT should be required to report their results in a timely manner and in sufficient detail to allow performance evaluations to be made on an annual basis.

# THE FARMING SYSTEMS UNIT

## Historical Overview

The Farming Systems Unit (FSU) was envisioned as the SAFGRAD mechanism for linking the commodity research conducted by the selected international agricultural research centers (IITA and ICRISAT) to the national agricultural research systems and to small farmers in the semi-arid tropics. The FSU was to be physically headquartered at the Kamboinse Research Station in Upper Volta, but was to expand its focus and activities to the region as a whole within a year or two of project start-up. The FSU was assigned five major areas of responsibility:

1. To analyze small farm conditions and the application of new technologies to those conditions;
2. To design, help to organize and analyze farmer field trials and studies;
3. To formulate strategies regarding the development and application of small farm technology;
4. To develop recommendations regarding physical research priorities;
5. To develop farming systems research methodologies of general application throughout the region and to assist new and ongoing FSR programs in SAFGRAD countries.

It was expected that the FSU would work collaboratively with other SAFGRAD and national commodity research entities in order to ensure that "new technologies....[are]....compatible with small farmer farming systems. A 'low infrastructure,' low risk technology is needed."[1]

Purdue University responded to an RFTP issued by AID in early 1978 and won a two-year contract. AID and Purdue signed the contract in mid-1978 and Purdue had part of its technical assistance team on the ground in Upper Volta by early 1979.

For the 1979-81 period, the FSU/Upper Volta staff consisted of three expatriate researchers (an agricultural economist who was also chief of party, an agronomist and an anthropologist), one Voltaic researcher with a Master's degree in economics and a number of locally hired enumerators and agronomic technicians as well as office and computer staff. Much effort was expended by project staff in the first two years to define a workable FSR methodology and to conduct on-farm trials.

## 1981 Evaluation Findings and Recommendations

In July 1981, an evaluation of the SAFGRAD project reviewed in considerable detail the experiences of the FSU and made fairly extensive recommendations on the changes needed to bring the FSU activities more in line with the spirit and purpose of the SAFGRAD project. Evaluators found that the first FSU researchers did not function as a "team." Rather, each pursued an

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[1]SAFGRAD Project Paper, p. 12

independent line of disciplinary research and carried out parts of the general methodology: village surveys, on-farm trials and socio-economic observations. Although they shared office space at Kamboinse with the commodity oriented researchers from IITA, there was little interaction within this group, either on research problem definition or on a program of on-farm trials. The research effort of the FSU was strictly limited to Upper Volta and there were no firm plans to "regionalize" the effort.

By mid-1981, the economic and anthropological surveys had generated an abundance of raw data, some of questionable quality. While only a few preliminary analyses and publications had been completed, the agronomic research program continued more or less on the basis of initial assumptions without the benefit of more refined information on farm-level constraints. Efforts to clean the data had repeatedly run into problems even though additional staff and computer equipment had been added to try to salvage the detailed data base and analyze it.

Although animal traction seeders showed some promise of increasing yields, primarily through increased tillage at seeding time to trap moisture, improved sorghum variety trials showed no appreciable increase in yields over local varieties. Trials also showed that the benefit from the rock phosphate applications appeared only in the second year, due to its low solubility.

The 1981 evaluation also pointed out that an underlying thrust of the FSU work---that it would be worthwhile to "identify and improve upon the extensive portion of the farmers' production

system...[was]....rather at variance with the rest of SAFGRAD, where the emphasis is upon the development of an intensive...agricultural system."[2]

In sum, the 1981 Evaluation Team concluded:

- the FSU had been assigned too many objectives without being given the resources to accomplish them;
- the staff was not as experienced as would have been desirable;
- early decisions on FSU methodology had led to a program focussed only in Upper Volta instead of the region as mandated, and had still run into serious conceptual and management difficulties;
- salvage operations were needed in order to "put...the FSU back on the track of carrying out adaptive research to develop improved technologies intended to integrate into existing farming systems."[3]

Four recommendations (1-4 below) were made in an effort to improve the effectiveness of the FSU in the two years then remaining in the project life. Two other recommendations (5-6 below) were made, directing FSU to establish better linkages with the commodity research elements of SAFGRAD and national FSR programs---these linkages were intended primarily to lead toward a more effective follow-up project. The Evaluation Team also reaffirmed the belief that "a strong FSR program is essential to the linking of agronomic research and extension activities at all levels---regional and national---throughout the SAFGRAD region."

Paraphrased, the six recommendations made in 1981 were:

1. the FSU should "cut its losses" in analysis of the intensive surveys and should focus on analysis of that portion of "most relevance to the trials program;"

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[2]Mid-Term Evaluation, p. 34.

[3]Ibid., p. 40.

2. the adaptive research focus should be made "a formal part of the Voltaic national agricultural research and extension structure."

3. the survey program should be slimmed down and turn around time on data collection and analysis should be reduced;

4. the ICRISAT-sponsored symposium on FSR should be used to "begin" a dialogue with IITA and ICRISAT scientists on regional level priorities;

5. the FSU should have a regional orientation (e.g., networking, assisting national research centers to set research priorities and providing expert assistance to SAFGRAD nations on setting up and conducting FSR and training;

6. ACPO operations should be integrated within national FSR programs.

Apparently, neither these recommendations nor the implications of the importance of the relationship of the FSU and other SAFGRAD entities were ever formally reviewed or accepted by the FSU, OAU/STRC or AID. The FSU responded directly to only two of the above recommendations (1 and 3) in its annual work planning efforts, but continued to further refine and restrict their objectives.

## FSU Performance, 1981-1984

The FSU has changed considerably since 1981 and most of the changes have been positive. The Purdue contract personnel have been completely replaced---twice, in fact. Although the prior FSR experience of the second team of researchers has not been any greater, the 1982/83 research program was positively affected by improved professional teamwork. The "third" team of technical assistance is now on the ground albeit incomplete. There are more reports and publications available. The village level

research approach has been considereably modified. Turn around time on data generation and analysis has been improved, particularly for the farmer managed trials. An experienced and well trained Voltaic field staff is now in place to ensure data are of reliable quality.

The original project objectives placed much of the responsibility on FSU for translating the commodity research efforts, undertaken by the IITA and ICRISAT, into a program that would have an impact on food grain production on small farms in the semi-arid tropics. Not only was the FSU to conduct farm level research, it was also to play a role in ensuring that other SAFGRAD research entities carried out their responsibilities more effectively. As the 1981 Evaluation Team noted, the orginal project design placed the burden of coordination of other SAFGRAD project components on the FSU without demanding reciprocal coordination efforts from the other SAFGRAD research groups. In addition, the FSU was to be a leader in developing and extending methodologies of farming systems research throughout the region.

The 1981 Evaluation Team judged the original project objectives to have been overly ambitious and to have been wisely reduced in practice by the first FSU Team. Of the five original objectives, the FSU in 1981 had given up work on the development of recommendations for research priorities for the regional commodity research and any activities to assist new and ongoing FSR programs in SAFGRAD countries. All small farm analysis and farmer field trial efforts had been restricted to Upper Volta. Since then, other and orginial objectives have been down played.

Strategy formulation for development and application of small farm technology was de-emphasized. Initially this seemed to imply that the FSU would take a global view of the linkages between commodity research, on-farm research and extension as well as a longer term research focus. It also implied articulating a concerted course of action for achieving specific development objectives. This definition seemed to be in keeping with the overall objectives of the SAFGRAD project.

The first agronomist with the FSU seems to have addressed himself to such a task. He outlined an agricultural production strategy for Upper Volta arguing that, based on the country's economic resources, soils deficient in phosphate, and the prices of cereals produced, Upper Volta should seek to more fully exploit local rock phosphate in cereal production. FSU's research strategy under his leadership followed from this view; a series of on-farm trials was begun to establish the utility of Volta phosphates in cereal production. While this strategic view was never adopted by the technical scientists in the SAFGRAD/IITA team, who contined to work on fertilizer trials involving considerably greater inputs of compound fertilizers, it has continued to have some impact on the work of the rest of the FSU staff as the on-farm trials program continues to emphasize Volta phosphate. Whether the results of these trials have caused a rethinking of this strategy is not clear. But there have been no further written efforts by the FSU to formulate alternative development strategies. The present research strategy basically

adopts the very general view originally laid out in the Project Paper---that those technological interventions appropriate to limited resource based farmers are likely to be most useful.

Recommendations conceivably affecting physical research priorities have been made by the FSU in reports of its own field activities in 1982 and 1983. But the FSU has apparently made little progress in encouraging IITA and ICRISAT (SAFGRAD) scientists to act upon those recommendations. Nor have the scientists apparently sought FSU advice in determing their research agendas. The reluctance of the IITA and ICRISAT scientists to define the activities of the FSU as "research" in interviews with the Evaluation Team is one indicator of difficulties in communications. This, combined with the disproportionate burden for liaison placed on the FSU in the Project Paper, has probably contributed to the FSU's down playing this objective.

The rationale for the FSU not carrying out regional training and consulting activities and for restricting its training focus in the last two years largely to their Voltaic field staff has never been clearly articulated. The FSU, however, has continued to accept its regional mandate since the regional focus is frequently mentioned in Purdue's correspondence with AID since 1981.

The most plausible reason for this lack of regional activity rests largely with the communication difficulties in Africa, making regular consulting and communications needed to play a regional training and networking role very time and energy consuming. Fluency in both French and English is essential as is

time to send and receive cabled or written messages. Face-to-face dialogues require expensive plane fares and substantial blocks of personal time. The FSU already exceeded its planned budget in simply conducting its work in Upper Volta.

Its limited publication record to date apparently reflects the shortness of time that staff found to do all the needed analysis. All of these elements make it difficult to achieve the interaction required to establish an effective regional information exchange network, while at the same time, carrying forward an ambitious program of on-farm and village level research in Upper Volta.

It was orginally envisioned that the FSU would provide consulting and advisory services for FSR activities in West Africa. The need largely unmet by FSU, for such assistance is strongly perceived by many West African national researchers. For example, a high level Senegalese scientist asked the Evaluation Team why AID did not fund a CIMMYT-like farming systems team for West Africa. His own program could benefit tremendously, he felt, from short-term technical assistance for training in survey methodology, data collection and analysis of on-farm trials.

The FSU experience raises serious questions about SAFGRAD's ability to build up and support the kind of farming systems research staff to fulfill the needs for technical assistance and training of national FSR programs in several SAFGRAD countries while at the same time personally conducting village level research in one or more countries. It could be argued that

Purdue should have recruited more senior and more experienced staff from the outset, capable of devoting more resources to analysis, outreach, and consulting in support of the ambitious regional goals. On the other hand, given the staff that Purdue actually recruited over the years and given the amount of time and money they had available to them, it could be argued---as the 1981 Evaluation Team did---that it was reasonable for the FSU to redefine its goals to fit the capabilities of the resources.

## Refined FSU Objectives

In the 1982 Annual Report, the FSU outlined its present project objectives:

1 To identify the principal constraints to increased food production.

2. To develop and implement a multi-disciplinary research method which can guide production technology and production research to directly address these production constraints.

3. To identify the elements of that method which can be implemented in national farming systems research programs.

4. To train Voltaic personnel to assume increasing responsiblity in the continuation of this work.

In terms of these more nationally oriented objectives, let us consider the performance of the FSU in attaining these objectives.

## Analysis of Small Farmer Conditions

In the 1979-81 period, emphasis was placed on household level interviewing and the collection of a broad variety of social and economic data. Several of the reports available for review during this evaluation presented information from surveys on household labor use and general analysis of the labor constraint. It is our understanding that much of the raw data from these surveys is still unanalyzed.

In 1982 and 1983, the FSU continued to collect socio-economic data to better refine its working hypotheses concerning farmer behavior and production constraints. A sample of 150 households in three villages was drawn in 1982 and input/output data were collected on a thrice-weekly basis, using a fairly standard transaction reporting format, as the basis for a broad constraints analysis. Data confirmed farmer perceptions that labor is a major constraint, while land quality was found to influence the mix of crops actually planted. Animal traction was available to many households, to a majority in some villages. Fairly detailed analyses are underway to understand the effects animal traction has on overall production and productivity. These findings have had some influence on the design of on-farm trials, but more thorough analysis remains to be done.

Socio-economic research during 1982 and 1983 used a series of one-time "special theme" surveys. Since the general characteristics of farm households in these villages were already known, each survey could be focussed on obtaining detailed information on specific research questions. Such socio-economic

investigations have included a systematic look at marketing practices, non-cereal food consumption, risk behavior and off-farm opportunity cost of labor, goals and objectives of farmers, yield expectations, and a qualitative questionnaire on farmers' problems and needs.

These "special theme" surveys seem to be a potentially useful approach to getting the kind of broader socio-economic data on village households needed without the expense of maintaining a large permanent sample and subjecting it to an overdose of questionnaires, possibly repeating the 1979-81 experience of generating an enormous quanity of undigestible data. Unfortunately, no reports based on these special theme surveys were available, so our assessment of the utility of this approach is incomplete.

Analysis of small farmer constraints and conditions is also part of the FSU approach to assessing the profitability and risk associated with the technologies tested in on-farm trials. These include seed variety trials of particular interest to the commodity breeding programs, and the tests of agronomic practices (fertilizer use, tied ridges) identified by the FSU as promising technologies. To date, only two socio-economic variables are considered explicitly to constrain farmers adoption of these technologies: labor and cash.

In addition, in the researcher managed trials, there has been an attempt to plant certain crops on land normally not considered appropriate for their cultivation, such as maize on village field land. Ownership of animal traction equipment is



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also taken into account. Only in the 1983 on-farm trials are samples stratified by use of animal traction. Since it made for a significant difference, it may be useful to consider more explicit attention to this variable in the future.

The 1983 data analyses on the profitabilty and risk associated with on-farm trials were ready, in a preliminary form, for the January 1984 TAC meeting. The French translation was circulated to the research community and to the Voltaic regional development organizations (ORDs) in February. This speed of report production reflects well on the management of the data collection and manipulation systems put in place in 1982 and 1983.

## Management of On-Farm Trials

The FSU worked in three villages in 1982, conducting eight researcher managed trials and one farmer managed trial on 30 household plots in each village. In 1983, the FSU expanded to five villages. There appears to be a great deal of personal involvement by the Ouaga-based Purdue staff in all field efforts, but there appears to have been little involvement of IITA or ICRISAT scientists in this on-farm work beyond some reported consultation at the design stage. The types of on-farm trials conducted represent a logical continuation of the earlier team's focus on alleviating soil fertility and water constraints.

The general approach used in the on-farm trials seems to be fairly straightforward, with large (1000 sq. meter) plots and fairly large numbers of participants per village (an average of ten in 1982). Animal traction is used by those farmers who have

it. After two years of a consistent on-farm trials approach, farmers interviewed in Nedogo were impressive in their abilities to recall the experiments associated with the different colored stakes used to delineate the experimental plots. They were also candid in their assessments of whether they would or would not apply similar techiques or inputs off the test plots. So far, they do not appear to be rushing to apply techniques tested.

Farmer Participation

The farmer managed trials associated with the FSU approach, have transferred some real resources to farmers (fertilizers, ridging blades, seeds), resulting in willing participation of the greater part of the villages households. However, the FSU approach seems to be biased against direct participation of female agricultural laborers in the on-farm trials. Since the FSU is using animal traction for ridging in some experiments, for example, it would seem to be the most direct and efficient in practical terms to work with those who perform the task. Farmers in Nedogo, a project village, told the evaluation team that while women do use donkey traction, the FSU had taught only men to use the ridgers and they in turn, had taught their wives. This seems a round about way to transfer simple information.

Results

In general, the results of the on-farm trials continued to show that many of the techniques and new varieties tested do not yet promise enough in the way of returns to be attractive to the average small farmer. The Volta phosphate/tied ridges trials on



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millet have proven to be uneconomical after two seasons and were only continued to determine the residual effects of Volta phosphates. Sorghum trials showed more promise and will be repeated with the fertilizer/tied ridges combinations. Although considered in the 1983 report to be somewhat risky in generating yield increases high enough to cover the opportunity costs of labor, use of tied ridges in the maize trials is to be continued because the technique does not involve actual cash loss. Still unclear is where the current trend of research will lead. It appears to be dependent on the personnel actually in the FSU. While there is a linearity in the research directions pursued by the FSU itself, there seems to be little input from or impact on the research being conducted by other components of the SAFGRAD project.

Further, the FSU has not attempted any farmer managed cowpea trials. Results from researcher managed legumes trials indicated in 1982 that costs for single crop spraying exceed the value of output. Test results from cowpeas intercropped with millet were negligible. Yet the results from the SAFGRAD cowpea improvement efforts are widely thought to be among the most exciting prospects emerging from the commodity oriented efforts. This raises a question regarding communication between the various elements of SAFGRAD. Is the FSU experience being taken into consideration by the IITA team, or should the FSU team be modifying their tests to improve the chances for on-farm success?

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## Implications of On-Farm Trials for Development

Earliest survey data showed that approximately 50 percent of the farmers in FSU's selected villages had access to animal traction. Donkey and oxen traction have since been an important element of all of FSU's on-farm trials, although care has been taken to include farms with only manual power as well. Other inputs to on-farm trials include fertilizer (Volta phosphate and urea), improved seed and a ridger. Unfortunately, public agricultural credit to purchase these inputs has been greatly curtailed in the past few years, making formal credit tight and virtually unattainable by farmers who do not participate in the project villages.

The 1984 special theme survey on informal access to credit will begin to describe the importance of credit as a constraint to production. During an Evaluation Team visit to Nedogo, farmers told how they obtained some of their farm implements through the personal intervention of the first FSU agronomist. They also laid the challenge to the new team by asking them to intercede again on their behalf with the credit agency. While the FSU does not feel it is their role to do so, the farmers raised an interesting point---to what extent is the FSR researcher obligated to intercede with agricultural institutions in behalf of farmers to obtain inputs?

These observation are not made to imply that FSU should not pursue a line of inquiry necessitating presently inaccessible inputs or to suggest that it should take on the responsiblity of intervening to make sure the supply system works, at least for



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the FSU cooperating villages. Rather, it is intended to highlight the critical interaction between agricultural policies, input delivery systems and research. It underlines the importance of the FSU and other faming systems research efforts continuing to collaborate closely with the development agencies to inform them of the potential benefits from using inputs. Information on the farm-level access to inputs might support more action to overcome the bottlenecks in the input delivery system.

## Development of a Model for Upper Volta

The FSU, in its efforts to design a working model for a national program, has placed its focus on the design of technology for Voltaic farmers. A qualified research agronomist as well as an agricultural economist on the team ensured that the technology trials could be designed and supervised by the FSU itself. This approach is somewhat different from the two other FSR models in Upper Volta, although certain features are shared.

The model used by the ICRISAT Economics Unit differs in its definition of its primary client, viewing its principle role as helping to guide the research of ICRISAT's bilogical and physical scientists. The methodology of on-farm trials and the use of frequent interviews to record input/output transactions are very similar. In addition, the ICRISAT Economics Units maintains permanent research relationships with a set of villages selected by roughly the same criteria as those used by the FSU. The French recherche-developpement model is geared to the extension of what the researchers feel to be a scientifically valid technology package. It is thus less experimental than either the

FSU or ICRISAT approach and places considerably less emphasis on socio-economic factors in technology development and application.

In developing its working model for Upper Volta, the FSU has trained what they consider to be excellent field interviewers. FSU staff, both Voltaic and expatriate, have established strong ties with participating villagers. With the improvements that have been made in managing this model since 1981, the FSU has confirmed the general findings of FSR programs in Upper Volta and elsewhere, indicating:

- there is a role for rapid surveys as well as in-depth surveys of farmer behavior;
- continuity of both staff and participants help to establish a situation where field work can produce statistically reliable results;
- an achievement of results leading to major improvements in productivity at the farm level is more difficult and time consuming than many project designers envision.

The FSU has also proven that socio-economic research not supported by solid agronomic and commodity research in high risk, low productivity areas of SAFGRAD countries, is likely to have a very limited impact.

The FSU has not yet demonstrated how the FSR approach developed by the Purdue Team can be linked effectively into a national research and extension system. The FSU is currently largely isolated, both physically and organizationally, from all other SAFGRAD entities; from national research programs in Upper Volta, and from other international research organizations. There are many reasons for this separation: lack of space at the



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Kamboinse Research Station; no strong working relationships with the commodity research scientists; the slow moving reorganization of the national research system around IVRAZ and; the fact that the FSU is a regional entity rather than a national entity as far as funding is concerned gave it no real status in the national system. The apparent lack of collaboration with other FSR entitities in Upper Volta, even given the methodological differences, is more surprising although the relatively rapid turnover of FSU staff has probably had some effect. In any event, with the exception of the successful coordination with ICRISAT to organize the September 1983 ICRISAT/IRAT/FSU workshop on "Farmer Participation in the Development and Evaluation of Agricultural Technologies," collaboration has been almost non-existent.

This organizational independence of the FSU is perceived as a positive thing by the Unit itself, apparently because it has simplified the day-to-day functioning of the project. In terms of the SAFGRAD project's institutional and long-term development objectives, however, this isolation has no redeeming features and undercuts the rationale for SAFGRAD creating FSU in the first place. For whatever reasons it may have come about, it is our view that the FSU's present organizational isolation or independence holds such serious consequences for the future effectiveness of the FSU effort that it may be the most important challenge for the coming year. While the FSU model can be transferred into a functioning national FSR program, there are many factors to be explored in determining the best method to actually accomplish this goal.

## Training of Voltaic Personnel

The training of its Voltaic field staff---most of whom have less than secondary school educations---is clearly one of the proudest accomplishments of the FSU. Four Voltaics are presently in the US for long-term training; none of them have returned and none appear to have a long-term commitment either to the FSU or to IVRAZ. The question of what will happen to this trained manpower after the present SAFGRAD/FSU project is over has not yet been, but should be, addressed.

# Methodology Comments

Data collection and analysis, while much more timely and relevant than in the earlier days of the FSU, are still not as comprehensive or rigorous as would be desirable. The evaluators feel there are some potential methodological soft spots bearing on FSU analysis that should be taken into consideration in conducting farming systems research in West Africa.

## Large Family Field Bias

By collecting commercialization data only on the farm family's main field, FSU analysis over estimates the household's subsistence orientation. In fact, the family cereal field is destined to feed the family. Cash sales by both male and female farmers appear to emanate mostly from the surplus grown on personal fields. Recognizing that a strictly "large family field" analysis could be misleading, the FSU plans to examine total market sales including sales from personal fields in its 1984 surveys.



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## Women's Agricultural Labor

There are several methodological problems stemming from FSU's apparent treatment of the female labor input. First, women's agricultural labor time is calculated as equivalent to 0.75 of men's labor time for all activities. FSU's unpublished econometric analysis of family labor productivity, shows that males and females are equally productive at planting but that women were .75 as productive as men only at weeding. Continued application of this conversion factor may well lead to an under estimation of total labor requirements and the real constraints women face in allocating more labor time to certain activities. At the same time, ethnographic and economic studies done on various ethnic groups in Upper Volta describe the clear, but highly variable difference between ethnic groups and gender differences in labor tasks and crops.

The combination of gender differences and under valuation of women's labor time may lead to missed opportunities for technology development and transfer. For example, among the ethnic groups in the FSU project villages, women do much of the seeding and most of the weeding, both acknowledged labor bottleneck periods. The family labor availability at these times is the FSU's fundamental assumption guiding their research plan and is considered to be a major constraint to increasing agricultural production. It may be more precise---and more significant---to know if the constraint is <u>women's</u> labor time. It is strongly recommended that FSU determine the opportunity cost of seeding, ridging and weeding labor to both men and women

and then think creatively about possibilities for shifting women's labor from less to more directly productive activities (assuming that on-farm trials and the socio-economic studies indicate that weeding is more productive than the present alternatives). To get at this information, women agricultural workers must be included in the survey sample. Interviews presently are conducted by the all-male FSU field staff with a de jure male head of household. Given that Swanson's statistics show that at least 50 percent of agricultural labor is provided by women, and that women control over half the number of the household's fields (though not half of the hectarage), asking the male head of household to describe his wives' activities and to estimate the time they spend on their personal as well as family fields is likely to severely bias the household labor data as well as marketing and decision-making analyses.

These factors indicate a possible source of analytical bias. In addition to gender-specific data handling, we suggest that experience elsewhere has shown that it may be easier for women interviewers to speak with women farmers. The FSU might wish to consider pilot testing this in Upper Volta by hiring at least one female interviewer for the 1984 season. The female Peace Corps Volunteer presently attached to the FSU can help train these women.

## Single Household Production Function

Anthropological and economic studies done by the FSU assume a single production function of essentially a simple good (food) for the entire household. Not only does this approach assume

that all family members share the same objectives, but it further assumes that the only---or at least major---concern is crop production. Gender analysis similar to that proposed above needs to examine the intra-household dynamics to determine various family members' access to and control over productive resources, sources and uses of income, incentives to production and decision-making. 1984 data collection efforts will include information on off-farm income. Hopefully these data will be used in modeling farm budgets and in doing partial analysis to determine the relative importance of crop production vis-a-vis other sources of both farm and off-farm income.

## Purdue Team Staffing

At present Purdue intends to field three American researchers for the 1984 work program, but only two (the agronomist chief of party and the junior agricultural economist) are currently in Ouagadougou. The senior agricultural economist has already spent two years in Ouaga and is scheduled to leave in May. For reasons of AID/Purdue contract negotiation delays, his replacement is just being recruited and the very real possibility that the FSU will not have a complete and/or an experienced staff this year must be recognized. While the Voltaic economist who has been associated with the FSU for several years may be capable of stepping in to cover the departure of the senior agricultural economist, there is no written evidence of his ability to do so and we were unable to meet with him as he was off on a short-term training course in Zimbabwe.

Further, it has been the experience of past Purdue teams that it takes at least one year of field experience in Upper Volta for the researchers to develop relatively efficient data collection approaches. Because the present agronomist was able to overlap a few months with the 1982-83 agronomist, and the field trial methodology and directions have become considerably more "set" in the last couple of years, the learning curve may be altered this year, but it seem unlikely. There will be no joint field experience opportunities for the senior agricultural economist (just leaving) and the junior agricultural economist (just arrived). Purdue will have to recruit a senior agricultural economist willing to carry out the program already planned for 1984 (and just that) if the FSU is to achieve the research objectives already set. Some candiates may balk at the lack of flexibility, but it seems important to try to fit the professional to the task rather than to allow, at this late date, the task to be redefined.

In addition to the possible agricultural economist gap already noted, the FSU itself has pointed out the need for a "training officer," defined as someone to develop training program materials based on FSU experience in Upper Volta to date and to organize and conduct sessions using these materials. This seems an excellent suggestion, especially given the publication record to date and the already full research agenda for the present staff in the coming year. The FSU clearly feels it will not be able to accomplish the objective of extending their methodology elsewhere in the SAFGRAD region unless such an

additional staff member is brought on board. Materials developed by the trainer should be useful to the IFAD/SAFGRAD and other national programs.

## Cost-Effectiveness of the FSU

It is quite clear that the FSU has not generated any quantifiable "benefit" to date. Yet just cver $3 million have been expended by the Purdue FSU contract and it is appropriate to question whether these resources have been well spent. In this section, we consider not only the post 1981 FSU but also that of the 1979-81 period. Cost effectiveness is considered here with regard to four FSU activities:

- field studies at the village level (roughly $1 million);
- analyses and publications (approximately $1.2 million);
- training ($100,000);
- networking (less than $100,000 for workshops in January 1981 and September 1983).

FSU backstopping by Purdue accounts for the residual funds (just under $900,000) and could not be even roughly allocated among the activities. Such backstopping is estimated to have absorbed about 30 percent of project resources.

### Field Studies

Since 1981, the FSU has concentrated its village level investigations in three to five villages, down from seven in the first years of the project. This restriction in the number of villages has probably permitted significant economies to be



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achieved in travel expenses and data collection/supervison costs as well as generally increasing overall staff effectiveness. Villages appear to be representative of relevent agro-ecological zones and it should be possible to extend analytical results to larger areas of Upper Volta (although it is not clear how this will actually be done, if ever). The salaries of FSU field staff are relatively attractive (40 to 60 percent higher than the Government of Upper Volta salaries for comparable skills) and turnover has been relatively low.

The real measure of effectiveness of field studies is the information generated. The Evaluation Team agrees with the self-evaluation of the FSU that the initial approach---with a larger number of villages, small sample sizes per village and relatively large numbers of data items collected per respondent---was cost-ineffective. It produced data of considerably lower quality than is presently being achieved with fewer villages, larger sample sizes per trial, and fewer pieces of information collected on more specifically defined research questions. As will be noted below, there is still some room for increasing the cost-effectiveness of the FSU funds in village survey operations.

Analyses and Publications

Since the 1981 Evaluation, the FSU has increased the number and improved the quality of its publications. The bibliography attached to the TAC report, includes 23 published reports with seven more in progress.

The 1982 Annual Report represents a major improvement in quality and writen analysis. The recently produced summary report on 1983 on-farm trials results, distributed to the ORDs, represents another positive information/dissemination step for the FSU. Feedback on its utility and readability should be solicited.

The analyses to date have been largely confined to description. Analyses leading to more actionable recommendations (either methodologically or in terms of agricultural technology development and transfer) are still only in early stages of drafting. The considerable effort expended in 1979-81 on developing a data base for more formal modelling efforts seems to have been totally written off by present project staff. The current effort being made to analyze project data on animal traction, however, is expected to lead to some further work on modelling with regard to that technology. There is a recognized need to develop some general farm budget analysis techniques to take advantage of the data base assembled and permit preliminary assessment of proposed technologies without actually carrying out on-farm trials. It is apparently the intent of the agricultural economist just leaving to undertake further modelling work once back at Purdue.

In general, the reports prior to 1982 are poorly edited and reproduced and do not reflect what one would expect of Purdue professional staff. The 1982 and 1983 preliminary reports are welcomed exceptions and set a new standard for future publications.

The FSU has not thus far been effective in disseminating analytical results either to collaborating SAFGRAD entities, to the Government of Upper Volta, or to other national or regional FSR efforts. Several reports, especially the early ones, may contain interesting information on the agricultural situation in Upper Volta, but they are unavailable in the country.

FSU performance in the area of analyses and publications on the whole, has been unacceptably expensive.

## Training

It is too early to say whether the majority of training expenditures have been effectively used. The four candidates now at Purdue are working toward PhD or MS degrees with apparently no guarantee of employment upon their return to Upper Volta. The training of the FSU Voltaic staff, stressed by the FSU team as their most important training effort, has obviously been important in assuring quality data from the village level studies.

In the five years of the project to date, the FSU provided relatively limited training opportunities to Purdue or Voltaic graduate students and none at all to FSR staff from other SAFGRAD countries.

Drawing from information in the annual reports and interviews, it appears that in the first three years of the project, only two Purdue graduate students have been engaged in FSU work in a junior professional capacity and even these were only brought in to handle the data glut from the initial field

surveys. In the last two years, the record of Purdue student involvement has been better---with two students having participated in the special monthly theme surveys now back in Purdue writing up results. Three Voltaics have also been involved in FSU research activities in the last two years and two of these have subsequently been able to draw upon these data for dissertation preparation. No Voltaic professionals have been involved in the FSU work, even on an "associate" basis. In addition, a Stanford graduate student will use project data he helped collect for his PhD dissertation.

Peace Corps Volunteers have worked on the project as field supervisors and provided considerable assistance in the FSU/ICRISAT/IRAT workshop but apparently no attempt has been made to encourage them to participate actively in data analysis or toward further education at Purdue.

Networking

While funds were budgeted for the FSU to hold an annual workshop, only two have been held--with comparatively little FSU involvement. The first, in January 1981 was held in Dakar and was, according to the agenda, introductory in nature. The September 1983 workshop held in Ouagadougou was more thoughtful and more widely attended. With ICRISAT as head organizer, FSU's participation consisted of a substantial financial contribution, collaboration between the FSU project agronomist and ICRISAT's economist to coordinate the conference and administrative/clerical support provided by FSU staff and by the

Peace Corps Volunteers assigned to the FSU. The publication of papers from this workshop will contribute to the growing FSR literature in Africa.

It is somewhat surprising that no workshop geared to the farming systems research issues in Upper Volta alone has been initiated under FSU auspices, especially since the thrust of the FSU activity has been so avowedly national. While it is clear that more active networking (through personal travel or sponsoring of workshops) might have further reduced time for research, it might have forced more attention to the use of research results and spurred greater analytical efforts on the part of FSU staff.

## SUMMARY

The FSU has conducted farming system research from its base in Ouagadougou, Upper Volta since early 1979. Purdue University was awarded the contract by AID/W to implement this component of the SAFGRAD project in 1978. Between 1979 and 1983, Purdue has fielded three research teams: the first included an agricultural economist, an agronomist and an anthropologist; the second team---an agronomist and an agricultural economist---came on board in 1982; and a third team, again with the agronomy and agricultural economics composition, will be in place for the 1984 season.

The major responsibilities in the orgininal project paper included: application of new technologies to small farm conditions; conducting studies in farmers fields; formulating

strategies for applying small farm technologies; recommending physical research priorities; and developing farming systems research methodologies applicable to other SAFGRAD countries.

The FSU has focussed its research efforts only in Upper Volta, with emphasis on village level, on-farm research. Other objectives, particularly those involving regional action, have been narrowed or eliminated. Formulation of strategies for development and application of small farm technology have been restricted, for example, to the formulation of a strategy for conducting on-farm trials in Upper Volta. The provision of recommendations regarding physical research priorities has been down played; more emphasis has been given to developing a method to guide research. Regional training and consulting activities have been limited to the training of FSU's Voltaic employees and to identification of a method which could be implemented in national FSR programs.

The FSU is physically isolated from other components of the SAFGRAD project and apparently has little interface with the commodity research scientists. As a result, the FSU has established their own agenda of agricultural practices to be tested in on-farm trials; conversely, it has had little impact on defining commodity research priorities or in getting other SAFGRAD researchers involved in farm-level activity.



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## CONCLUSIONS

1. The FSU initially started with a team that was inexperienced in farming systems research and quickly became bogged down with an over abundance of data that has yet to be analyzed and put into a useful form. This initial "wrong" direction continues to haunt the FSU Team.
2. The FSU component of the SAFGRAD project was originally planned as a regional effort and was intended to provide both information useful to improving farming systems in the region as well as to providing methodological information useful for the conduct of farming systems research elsewhere. Since the FSU has only worked in Upper Volta, little information on technologies tested there can be readily applied elsewhere in the region. The methodology for conducting research may have potential value to other countries in the region, but has not yet been transferred elsewhere---and there are presently no plans, beyond a few publications, to do so.
3. Purdue University has provided less than half of the FSU staff from its own faculty, although in recent years all or the majority of the team members have come from the faculty. Presently, there is concern over the replacement of the agricultural economist of the 1982-83 team. AID has been unable to assure Purdue of funding beyond April 1984, and this has delayed recruitment of a replacement.

4. Although the FSU team originally shared office space at the Kamboinse Research Station with other SAFGRAD researchers (commodity oriented), the FSU recently moved to independent office quarters in Ouagadougou. In the process, the FSU has isolated itself from ICRISAT, IITA and Voltaic researchers at Kamboinse and reduced the potential interaction with this group.

5. The major effort of the FSU has been expended on field surveys and on-farm trials in five to seven Voltaic villages. The quality of data collected and the analysis of the findings has steadily improved over the more than five years of the FSU existence. One can still critique certain aspects of both methodology and analyses (for example, subsistence farmer bias, inadequate examination and involvement of women and a continuing need to take additional factors into analytical account), but overall, the development of a consistent methodology and increasingly fast turn around on data collection and analysis must be applauded.

6. To date, the FSU has not generated a quantifiable benefit in development terms---either in Upper Volta or in the SAFGRAD region. Analysis and publication costs ($1.2 million) have been unacceptably high. While a few of the recent FSU reports are excellent, the overall publication record is poor. Many reports are still being written; some of the earlier ones are unabailable. Considering that the field studies upon which the analyses are to be based have also

cost some one million dollars, the cost-effectiveness of the project as a source of information for agricultural development in Upper Volta or in the SAFGRAD region can be questioned. A relatively small amount of project funds have been allocated for training, with only four Voltaic candidates for MS or PhD degrees currently studying at Purdue University.

## SUGGESTIONS AND RECOMMENDATIONS

Rather than asking the FSU, the SAFGRAD Coordination Office and AID to make heroic efforts to alter the course of project implemenation, we are making only three recommendations that we believe are actionable between now and the project termination date. However, several suggestions are made that we believe would strengthen FSU accomplishments.

Recommendations

1. The FSU should be fully staffed with expatriate researchers as stipulated in the Purdue contract and a training officers should be added in 1984 as recommedned in the TAC Report for 1984. If budgetary restrictions preclude hiring a Training Officer, FSU should investigate other sources of technical assistance to enable a process of wider information dissemination about FSU findings and methods to be launched. The centrally funded Farming Systems Support Project (FSSP) could provide short-term technical assistance for training, development of training materials and networking.

2. During 1984-85 the FSU should plan a series of seminars and workshops for various Voltaic audiences to inform them in depth of FSU findings and to get feedback on the perceived value of FSU research to date. The FSU must try to ensure that its efforts and those of other FSR programs (IRAT and ICRISAT) are also presented for joint review and discussion at the national level in Upper Volta.

3. The 1984 work plan should be pursued as indicated with two additions:

   - FSU should specifically seek to work more closely with the IITA cowpea research program;
   - FSU should include female respondants in the village surveys. If appropriate, female interviewers should be hired as soon as possible to facilitate contacts with female agricultural laborers.

Suggestions

1. Purdue/FSU should seek ways to improve the analysis and publication record of the FSU between now and March 1985 by:

   - editing some of the earlier publications and re-issuing them in an acceptable professional format;
   - providing technical writer/editor assistance as necessary, particularly to ensure that draft documents from earlier team members are put into publishable form and also to assist present team members to move rapidly toward publication;
   - providing data to graduate students seeking to do analytical papers, theses, etc.
   - installing a word processing package in Ouagadougou backed up by a letter-quality printer in West Lafayette;
   - providing the current project agricultural economist, Mahlon Lang, the opportunity to analyze and write for a year;



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2. FSU should seek to establish collegial contacts with other FSR projects in the Sahel for the purposes of:

   - sharing ideas on FSR techniques;
   - sharing analytical results; and
   - identifying useful exchange/training and networking opportunities.

3. AID and the Government of Upper Volta should give serious attention to continuing FSU research activities by locating them in the core of a national farming systems research program with bilateral funding from AID.

4. The issue of project office location should be seriously reconsidered and criterion of maximizing opportunities for research interaction be developed.

5. SAFGRAD, in developing any follow-on project, should take into account the experiences of the FSU to date, particularly those regarding personnel/institutional linkages, technique/methods, data management and analytical time requirements.

## ACCELERATED CROP PRODUCTION OFFICERS

### Background

The Accelerated Crop Production Officer (ACPO) program is an important component of SAFGRAD, providing a bridge between national research and extension programs in member states. According to the Project Paper, the ACPOs were to be "involved in implementing national field trials, studies and other related functions." ACPOs were seen as the "SAFGRAD response to a critical weakness in crop research programs.....weaknesses in getting research results disseminated, tested, adapted and to the farmer." ACPO programs were envisioned as being somewhat different in each country due to differing national research and extension organizations, capabilities and priorities. The Project Paper provided for responsibilities in three main categories:

- Conduct field trials and studies under various conditions to test the adaptability, deficiencies and potential of various recommended crop varieties and practices;
- Provide a linkage to crop research and development programs elsewhere in the region to enable the participating country to benefit from and contribute to regional progress.
- To coordinate with national research and extension/development agencies in arranging for broader national testing and demonstration of those varieties and cultural practices that appear technologically superior and otherwise suitable.

No individual ACPO was expected to perform all functions. They were to be assigned functions depending on country needs and priorities. The Project Paper anticipated that most ACPOs would initially be expatriates provided through bilateral arrangements between individual participating countries and individual donors. African ACPOs were to be trained with "the knowledge and orientation to deal with the broad issues related to translating research into benefits in farmers' fields." They were to be integrated into national research and development programs under the direction of the national research director. Further, the Project Paper anticipated:

- ....this arrangement is to ensure ACPOs will be responsive to national needs and will command resources and have influence on the way research is directed, tested and applied.
- .....only if ACPOs are permitted by national authorities to function with a fair degree of regional coordination will the benefits of outside research be shared among SAFGRAD countries.

Regional guidance for ACPOs was to be provided by tne OAU/STRC International Coordinator using materials and information developed by regional, national and/or international researchers, including FSU. The Project Paper projected ACPOs in 18 member countries with funding from several donors including USAID.

## Mid-Term Evaluation

The Mid-Term Evaluation noted:

- The Accelerated Crop Production Officer (ACPO) was to have two roles in the country to which he is assigned: (1) liaison between national and regional level research and (2) liaison between national research and



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national extension. In the former case this has meant his being responsible for regional trials of varieties and technologies coming out of the regional level research centers and in some cases from national research programs.

- Each of the AID supported ACPOs contacted by the Evaluation Team (ACPOs assigned to Senegal, Mali, Cameroon and Upper Volta) has made his own accommodation of this mandate to the resources and opportunities found in his country of assignment. Except for the ACPO in Senegal, whose assignment was so recent that no judgment of performance could be made, each appears to be doing an excellent job.

- The Accelerated Crop Production Officer (ACPO) program insofar as a regional orientation exists, should ideally have promoted an integration of regional with national research, but in fact has not. In those countries in which the ACPO has a regional function, the integrating device---the regional trials of the technologies produced by IITA and ICRISAT---has largely been something the ACPO does and is not an integral part of the on-going program of the national research institution.

- The ACPOs seem to function well administratively within their national environment and the lines of communication are in place. However, the information exchange among ACPOs is dependent on individual initiative and travel since the proposed annual meetings between ACPOs have not been taking place. Additionally, the degree of involvement of the ACPO in regional concerns is a chance result of the national situation and not (as foreseen in the Project Paper) a result of active SAFGRAD coordination efforts.

The Mid-Term Evaluation briefly described the ACPO program and its operation in Senegal, Mali, Upper Volta and Cameroon. Major recommendations made were:

- That the ACPO role be limited to liaison between national research and national extension, with permanent research staff at national centers taking responsibility for conducting regional research trials.

- That the ACPOs be assigned to national farming systems programs to provide leverage to the farming systems' extension activities beyond the immediate geographic areas in which they are working.

## Present Program

The present evaluation finds the ACPO situation generally unchanged conceptually, organizationally and adminstratively from the descriptions provided in 1981. In February 1984, visits were made to Cameroon, Upper Volta, Togo, Senegal and Mali where are ACPOs. The following comments are provided as an update on the 1981 evaluation findings.

### Cameroon

The work of the ACPO is well integrated into the Institute de Researches Agronomiques (IRA) program centered in Maroua, Cameroon. There appears to be an excellent understanding and an appreciation for the ACPO contribution to making research-extension linkages.

The ACPO program in Cameroon started in 1979. Over time the emphasis on the major task of the ACPO has undergone an evolution from total on-station trials to total on-farm trials. Initially the Maroua Center did not have sufficient researchers to screen materials provided by the IARCs. So the ACPO assisted in this work. Subsequent testing was conducted on research sub-stations. Only then were promising locally adapted varieties selected for pre-extension on-farm trials. Liaison with the national extension program was initiated in 1980 through cooperative trials implemented by services of the Ministry of Agriculture and the principal development corporation, SODECOTON.



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Since 1982, the Cameroon Government has placed two cowpea entomologists and a breeder each on sorghum, groundnuts and maize at the Maroua station where the ACPO is based. With this reinforcement of the research capability of the station, the ACPO and his national counterpart no longer conduct on-station trials. Instead, they now work directly with on-farm trials (using improved varieties selected at the station), consumer preference tests and initial multiplication of seeds of varieties accepted by the farmers. Seed of selected varieties is delivered to national seed multiplication and extension officials who receive advice from the ACPO on methods of extending research results to small farmers.

Extension work in Northern Cameroon is conducted by SODOCOTON which has been in cotton production since the 1940s. Their extension system which has proven its effectiveness is francophone in style and is highly hierarchical.

The Government of Cameroon has given the added responsibility of extension work in food production to SODOCOTON. Obviously, SODOCOTON has little experience in this area. In response to this directive, SODOCOTON has asked the Maroua Research Center for assistance in food production technology. The ACPO is working closely with SODOCOTON in developing protocols and training materials. SODOCOTON is planning to incorporate food crop production into the existing year-long training program for its employees. Under these circumstances the ACPO has an excellent entre into a system backed by proven research results of improved varieties and cultural practices ready for transfer to a large number of farmers. Although agricultural extension

and research are managed by two autonomous administrative bodies, the Cameroon ACPO has successfully demonstrated the necessity and effectiveness of workng with both to help the farmer increase food production even without formal agreement.

It is important to note that the ACPO work is limited to the semi-arid region of Northern Camerooon. Because of the relatively small geographic area, efforts can be more intensive. A comparable situation does not presently exist in the rest of Cameroon where there is no ACPO activity nor effective extension system. However, Cameroon has indicated that the ACPO has proven the value of on-farm work as a beneficial linkage between research and extension. The Government of Cameroon administration has indicated the research centers would provide for this work even if SAFGRAD did not do so. They are also studying ways to strengthen the extension program throughout the rest of Cameroon. Unfortunately, the ACPO who has been so successful in the SAFGRAD program in Maroua plans to leave in February 1984. To find an equally able, dedicated and innovative replacement will be a challenge. Since the national counterpart has not yet received higher level training, he is not yet prepared to take over full ACPO responsibilities. Therefore, the continued impact of SAFGRAD is potentially at risk.

UPPER VOLTA

The program in Upper Volta was started in 1979, using an expatriate ACPO as an integrated unit in the national research system. Pre-extension trials as well as on-farm trials were conducted mainly within the 500 to 800 mm rainfall ecological

zone. Low soil fertility and low water retention capability are common to most soils in this zone. Several varieties of maize, sorghum and cowpeas were included in the study. Since 1981 emphasis has been placed on the use of rock phosphate and improved cultural practices (such as tied ridges) shown to increase yields subtantially when both local and improved varieties are used.

In January 1981, a national counterpart was identified to work with the expatriate. In 1982 the expatriate ACPO left the SAFGRAD program and the national counterpart has been the ACPO since that time. However, the expatriate ACPO and the counterpart had not worked closely together. The expatriate had for example, a close working relationship with the Purdue Farming Systems Unit (effectively a national research project). Unfortunately, the national ACPO had not been involved in this work. The lack of close ties to national research is a weakness in the Upper Volta ACPO program.

The communications problem, cited in the 1981 Mid-Term Evaluation, between the autonomous ministries responsible for research and extension still exists. In August 1982, the government created the Service National de Vulgarisation Agricole and attached the ACPO to its Section Experimentation et Prevulgarisation (pre-extension). This new organization brought together two previously autonomous units: Le Service d'Experimentation et d'Etudes d'Accompagnement and Le Service de Vulgarisation et de Formation. It was hoped that this new arrangement would facilitate their cooperative efforts, including

the ACPO's work. However, this has not been the case. There has been internal dissatisfaction with the arrangement in the Ministry and another reorganization is in process. Even so, the ACPO reports that there is joint discussion of his annual work plan by the Chef de Service and head of the section to which he is attached. At this time, national continuity for providing ACPO direction is uncertain.

In spite of the difficulties resulting from confused administrative lines and inadequate operational support (a technician has yet to be provided by the Upper Volta Government though previously agreed upon), the ACPO has continued on-farm trials. Further, the ACPO has involved himself in training for extension agents where he has shown results of on-farm trials, explained protocols used, demonstrated techniques and has provided hands-on training.

TOGO

Unlike other ACPOs who are financed through USAID, the Togo ACPO activities are funded by FAC (French aid). The ACPO, a French national, and his Togolese counterpart, assisted by three agricultural technicians, are the only ones involved in on-station as well as on-farm trials on the SAFGRAD crops in northern Togo. The on-farm trials are located mainly on the farmer's fields involved in a government resettlement scheme in the Kara Valley where more than 900 families have been settled.

Although some encouraging results have been obtained from some trials such as the use of rock phosphate as a locally available fertilizer and control of striga by a resistant high



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yielding sorghum variety, lack of a back-up team to conduct on-station research is a major constraint. If not corrected, it could greatly limit the possibilities for achieving increased food production at the farmer level in Togo.

According to information secured in interviews in Togo, the expatriate ACPO provides relatively little leadership in the SAFGRAD program. Apparently most of the work is conducted by the national counterpart and technical assistants. Another weakness is the program's isolation from USAID operations. Because the ACPO program is funded by FAC and the Kara site is a considerable distance from Lome, USAID/Togo has not had the technical expertise to interact effectively with the SAFGRAD project team. USAID is planning to initiate an animal traction program in the Kara area and expects there will be more collaboration in the future.

SENEGAL

The ACPO program started in 1980 with a Senegalese national, an Ingenieur Agronome with university training. Since 1977, he had been associated with the National Agronomic Research Center at Bambey. As an integral part of the national agricultural research system, the ACPO has helped to complement national research activities at the Nioror and Sefa stations. Evaluation of several sorghum varieties resulted in the identification of four promising lines currently being used in pre-extension trials. Several improved millet varieties were also screened. Four high-yielding lines have been included in pre-extension



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trials. Five promising lines of cowpeas were identified for further evaluation. Studies on cultural practices relating to the improvement of soil fertility indicate that maize yields are substantially improved when preceded by cowpeas (rotation and relay trials). During the current cropping season, several on-farm trials on maize, millet, sorghum and cowpeas are in progress.

Although the work of the station is promising, it is difficult to isolate the ACPO's contribution to the overall effort. The ACPO's last annual report included the work of two seasons and did not acknowledge the on-farm research input effort contributed by the development corporation, SODEVA. Further, there are indications from the head of the Bambey Farming System Unit (the ACPO's parent organization) that his variety and agronomic trials have not been sufficiently rigorous in execution resulting in "weaker" conclusions than might be normaly expected.

Although the tie to regional results through the work of the IARCs is valued, there appears to be inadequte channels of communication between SAFGRAD and USAID/Senegal and between Senegal national research and extension programs. Internal Senegalese communication does not fill this gap. Additionally, there appears to be considerable overlap in the on-farm testing being done by the SAFGRAD/ACPO and those of other cereal grain and legume projects in Senegal.

An interview with the Director of SODEVA revealed that the working relationship with SAFGRAD is unsatisfactory. The SAFGRAD relationship has been more demanding than collaborative. The ACPO has used SODEVA to facilitate contacts with farmers to allow

on-farm trials of materials not previously agreed to in the SODEVA/SAFGRAD joint work plan and has improperly used extension agents to assist in non-authorized work.

SODEVA plans to operationalize a large audio-visual unit with a sizable production capacity and several fully equipped mobile units. In addition to the technical expertise that is available locally, an outside consultant will be employed for at least six months as advisor to provide backstop support for the audio-visual project. The major constraints to furthering this teaching effort includes the lack of new information from research and a shortage of funds for supportive educational materials.

MALI

The ACPO program was started in 1978 with pre-extension tests at 26 sites. The theme of the preliminary on-farm tests was on increased yields based on improved varieties of sorghum, millet, maize and fertilizer application. The results indicated that the improved varieties of cereals and grain legumes (cowpeas and groundnuts) were generally yielding less than the local varieties. In general, yields were improved through fertilizer application.

After analyzing data of the pre-extension trials, the ACPO in collaboration with the national research and extension staff, included trials designed to improve soil fertility. Since 1979, rock phosphate trials with other improved practices have been conducted on farmers' fields in the major ecological zones of Mali. During the 1983 crop season, there were 260 such trials.



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In most of the regions, yields of millet, sorghum, maize and groundnuts have substantially increased. The yield increase due to rock phosphate (applied once only), using both improved and local varieties, reached its maximum during the second year in some regions and during the third in others.

The success of the ACPO program in Mali has been ascribed to a good understanding and cooperative attitude between the ACPO and the national research and extension services. Fortunately, both fall within the same administrative structure. From the beginning of the ACPO program in Mali, national officials were concerned about the weak link between research, extension and the Malian farmers. Farmers were appreciative of the role the ACPO could play in strengthening this linkage.

Pre-extension trials are conducted in farmers' fields with material inputs provided by the ACPO and based on national research results. Overall project supervision is provided by the ACPO or one of his staff with the extension agent providing the on-going supervision of work done by the cooperating farmer. Each trial is based on written instructions which the ACPO has thoroughly explained to extension agents before the trial begins.

The expatriate ACPO also began working with regional development agencies to establish pre-extension teams in each extension organization. Once these teams are fully operational, it is expected the ACPO will have less direct involvement in field trials. More time will be spent coordinating the work of pre-extension teams. However, this aspect of the ACPO program appears to be proceeding more slowly since the expatriate left the program.



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Since September 1982, the ACPO program has been conducted by a trained national assisted by a team of several Malians. He has continued the highly successful program implemented by his predecessor. A concern for the future is the development of a positive working relationship with the Farm Production System Division, a separate organization also instructed to work with on-farm trials.

Generally recognized as the most effective ACPO program is SAFGRAD, the Mali ACPO program was the first to be implemented and has had excellent leadership and administrative support throughout its history. This program has yet to evolve through the final research-extension link---full integration of positive results proven in selected on-farm trials into the general extension programs for small scale farmers in large numbers.

## ACPO Program Strengths

1. Generally recognized as one of the most successful aspects of the SAFGRAD project, ACPOs have:
   - Strengthened linkages between national research and extension organizations.
   - Have responded to the unique opportunities, priorities and constraints found in each country.
   - Provided a bridge between on-station testing and testing under the conditions actually found in farmer fields.
   - Conducted farmer managed trials directly in farmers fields.



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- o Helped identify candidates for both long and short-term training programs.
- o Provided highly valued on-the-job training for national counterparts.
- o Provided informative reports which are generally received on schedule.

2. Program support covers the recurring costs for countries not able to provide them.
3. OAU member countries without ACPO programs are asking to have ACPO programs started.

ACPO Program Weaknesses

1. There were several flaws in the project design which became apparent during implementation of the ACPO program. Some probably could not have been foreseen, such as:
   - o The complexity of transferring useable research findings to general adoption on small farms was not fully recognized. One ACPO cannot simultaneously perform all the steps in a major developmental process covering a vast geographic area with poor roads, inadequate transportation and other almost non-existant channels of communication.
   - o SAFGRAD did not recognize the essential division between research and extension responsibilities in the research-extension linkage. The transition from on-station trials to on-farm trials is still a part of the research chain. While on-farm trials do, in fact,



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represent selected site demonstrations, the end results of trials cannot be predicted and in fact may not outperform local varieties and practices. This kind of demonstration is experimental, a part of applied research and should not be considered an extension demonstration, even if performed in collaboration with the local extension agent. Rather, these trials represent the last link in the research chain---the pre-extension testing (local adaption) essential before improved varieties or cultural practices are ready for mass dissemination and promotion. True extension demonstrations promote technology known to be effective.

- Job performance expectations for the ACPO were too broad and managerially impractical. It was unrealistic to expect that one ACPO per country, working administratively under the national research ministry could (a) single handedly impact on national research priorities, (b) be substantially involved in on-station and on-farm trials, as well as (c) significantly impact on a national extension system that is usually in a different and often resource competitive ministry.
- The Project Paper did not stress the importance of clearly defined ACPO position responsibilities at the time contractual arrangements were being made to initiate the program in each country.



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- There are multiple lines of authority possible for the ACPO position. The authority chain appears to have as many as nine levels of management for some ACPOs, appears to allow by-passing of national supervisors in some cases, and does not significantly involve local USAID Mission ADOs in others.

2. A complaint often expressed by ACPOs was that researchers when visiting national centers in their country did not usually allow time to visit on-farm trial sites related to their work nor did researchers plan consultative visits with the ACPO to respond to questions and offer advice and clarification of research underway and to learn about farmer raised issues and problems related to their crop research work.
3. Not all countries have provided the national resources (whether technicians or other staff) agreed upon when the ACPO program was accepted.
4. The ACPO network which was to be supported in large part through annual ACPO conferences has not been set in place.
5. No difinitive action toward implementing the 1981 Mid-Term Evaluation recommendations is apparent.

## Conclusions

1. The ACPO program has tailored research and extension activities to the needs of the participating country. While much remains to be done, the ACPO program has made a major contribution in meeting SAFGRAD objectives. It should be continued.
2. There is clearly a need for a more formal in-country support mechanism that specifies program and administrative relationships with research and extension entities.

## ACPO Program Recommendations

1. Strengthening of the liaison and consultative roles between researchers in international and regional research centers is needed to gain national support for the ACPO program.

2. The SAFGRAD/ACPO program in Senegal appears to duplicate the work of other national programs and should be phased into an appropriate national program, including transfer of funding responsibilities. Senegal agricultural support available is sufficient for that country to be able to finance ACPO positions as part of other programs.
3. As ACPO contracts come up for renewal, OAU/STRC should renegiotiate position responsibilities to clarify performance expected. The phase in the research-extension-farmer continuum could serve as a guide. (See Appendix E.)

## ACPO Program Suggestions

1. The ACPO program should be reassessed regularly by the OAU/STRC Coordinator's Office to:
   - o Determine where in the research-extension-farmer continuum each ACPO program is as described in Appendix E.
   - o Assess the nature and capacity of national research, extension and/or other organizations to conduct programs compatible with SAFGRAD objectives.
   - o Determine the most effective administrative placement for the ACPO to operationalize the phase(s) considered to be most critical in the research-extension continuum.
2. Continue to submit annual line item budgets for each ACPO program to the OAU/STRC Coordination Office. Once approved, authority for day-to-day expenditures and within budget line shifts resulting from ad hoc ACPO requests should be transferred closer to local site management. Transfer of approved funds to a location closer to program operation (local AID Mission or host country institution) would provide for more direct management, avoid delays in processing routine paperwork, allow faster response to local problems and concerns, and reduce the need for inter-country communication. The present process has compromised SAFGRAD ability to make timely program decisions.



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3. Operationalize the ACPO network proposed in the Project Paper to facilitate the sharing of information and methodology across SAFGRAD countries. SAFGRAD should support an ACPO network including people in programs funded by others performing research-extension-farmer linkage functions.

4. Country specific recommendations are as follows:

   - Set up Cameroon and Mali as showcase ACPO training centers by providing the support needed to fully implement each phase in the research-extension-farm continuum.
   - In Mali where the ACPO is attached to the Multi-Location Trial Unit within the research system, enter into a separate contractual agreement to use Ingenieurs currently on the pay-roll, but not utilizing their technical capabilities due to lack of operational funds as part of SAFGRADs work force. Since that unit already has an administrative head, managable work relationships with the ACPO (who is more highly educated and more experienced) will have to be specified as part of the negotiated agreement.
   - In Upper Volta, one of two alternatives should be considered:
     - The ACPO role should be negotiated with both national research and extension entities to specify the responsibilities of the ACPO and their office/staff collaboration in a cooperatively negotiated contractual agreement. A collaborative



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and collegial relationship should be encouraged with the FSU, but the ACPO should not be administratively placed in the unit at this time.

- Since the national organizational structure has not yet stabilized and there is the possibility that the FSU program will become a national research project, an expatriate ACPO is needed to do the task described above. It will be easier for an outsider to establish new working patterns than for the present national counterpart to do so. Meanwhile, the national counterpart should be sent for graduate level training so he can become fully qualified to take over the ACPO position when he returns.

o Although small, the ACPO program in Togo is making a positive impact. The national counterpart is ready for training. His out-of-country training should get underway as soon as possible so he can take full charge of the program.

## TRAINING

The SAFGRAD training program was undertaken to stimulate the development of African research capacity and the capacity to organize, implement and evaluate applied research programs including the development of information and result sharing mechanisms. Training programs were to include on-the-job training, short courses and formal academic degree programs.

Some short term participant training was specified in the respective AID contracts with IITA, ICRISAT and Purdue. The IITA contract was the most specific with regard to training and calls for the contractor to:

> .....identify and train African scientists and specialists both on-the-job and short-course training at their headquarters or other mutually agreed sites, to strengthen manpower capabilities in national and regional semi-arid food crop research and production programs. It is estimated that this effort will include at least ten trainees annually for an average of six months each. The contractor will also advise on the fields and persons for graduate training abroad financed from other sources.

The SAFGRAD project also called upon OAU/STRC to:

> arrange to coordinate with participating countries an inventory of the regional manpower needs in crops and soils researchers as part of the initial planning for the projects'participant training program.

Table 1

Current Distribution of ACPOs in SAFGRAD Member States[1]

| Member State | Donor | Location | Name of ACPO | Date ACPO Started Service | National Counter-parts working with ACPO[2] |
|---|---|---|---|---|---|
| Cameroon | USAID | Maroua | Owen Gwathmey (Expatriate) | May 1979 | Martin Fobasso |
| Mali | USAID | Sotuba (Bamako) | Lamine Traore (National) | September 1982 | |
| Senegal | USAID | Bambey | Mankeur Fall (National) | February 1981 | |
| Togo | FAC | Lama-Kara | Robert Martin (Expatriate) | June 1982 | Batussi Mpo |
| Upper Volta | USAID | Kamboinse | Moussa Kabore (National) | May 1982 | |

[1] An agreement was signed with the Republic of Benin since June 28, 1980 but no ACPO has been appointed for Benin.

[2] After initial on-the-job-training by the expatriate ACPO, the national counterpart is expected to undergo advanced university training. When the national counterpart completes training, he is expected to fully take over ACPO responsibilities. Neither of the national counter-parts have yet undergone advanced university training.

A comprehensive report on the SAFGRAD training program was completed in 1983 under a USAID contract with Bill Garvey. His report included the period through July 1983. Equivalent fourth quarter data were not available to the Evaluation Team. Since the situation as stated in the Garvey Report is essentially the same as now, the Evaluation Team accepted its conclusions. These are presented in condensed form in Appendix D.

A current review of training program participants is presented in Table 2. Information was based on follow-up to data extracted by Garvey from PIO/Ts, USAID quarterly financial reports and training office files. This was supplemented by personal interviews in ACPO program countries and with personnel in the USAID Training Office. A working document on training prepared for the January 1984 TAC meeting lists an additional eight trainees in the IITA six-month program (four from Mali and one each from Guinea, Somalia, Sierra Leone and Togo) plus an additional one in the ICRISAT six-month program. Because these numbers could not be substantiated by documents reviewed, they are not included in the figures presented in Table 2.

Some differences between Table 2 and other earlier presentations may also result from the deletion of persons named on previous lists who never matriculated, resigned or were terminated. These include two MS candidates from Guinea who were terminated; one each from Cameroon and Senegal who were not accepted by the several US universities to which they applied, one from Mali who resigned and; one from Upper Volta who refused to start in the program after being accepted. Also one person is

listed by Purdue for both the MS and PhD program, but since current enrollment is for the MS, it is the only count included in Table 2.

## Training Program Strengths

- SAFGRAD has unquestionably made significant, though relatively small, inroads in filling a great need for improved research capability at all levels of its operation in the semi-arid countries of Africa.

## Training Program Weaknesses

- The Project Paper states: "Under SAFGRAD, Training support will be arranged by the AID Project Manager and the OAU/STRC, in consultation with host governments and the CC following an appraisal of manpower needs." There is no record that this appraisal was conducted.
- SAFGRAD countries were expected to nominate candidates for long-term training under SAFGRAD auspices yet insufficient criteria for their selection was provided.
- As noted in the CC recommendations of November 1983, and reiterated in the TAC recommendations of January 1984, there are inadequate records in SAFGRAD headquarters (OAU/STRC) of long term training participants' performance and subsequent placement i.e., academic records, dates of return and placement in SAFGRAD countries.



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- Processing necessary documentation for long term training participants has been cumbersome and slow for some countries and some candidates.
- The training section of the SAFGRAD project paper states:

> The development of African research and outreach capability is a matter of great concern to participating countries....and African ACPOs must be trained who have the knowledge and orientation to deal with the broad issues related to translating research into benefits in farmers' fields.

Yet even initially, expatriate ACPOs were not required to have extension background or experience. There was no apparent plan for training them or African ACPOs in extension methodology or practices.

- Initiating formal training for ACPO national counterparts has generally proceded very slowly, thereby extending the time expatriates are needed in the ACPO program and increasing its cost.
- The level of funds available in the training program has been considerably less than proposed in the Project Paper.

## CONCLUSIONS

1. Both long and short term training programs have proven effective and should be strengthened and continued.
2. The amount of training provided at all levels has fallen short of the maximum provided in the initial SAFGRAD training budget.

## RECOMMENDATIONS

1. Make provision under SAFGRAD to continue uninterrupted funding for degree candidates who are presently participants in the long-term training program.
2. The OAU/STRC Coordinator's Office should organize and maintain files on both long and short-term training programs and participants. Both the OAU/STRC Coordinator's Office and USAID should collaborate in finding ways to expedite processing paperwork related to training.
3. Conduct short-term training in the language of participants, not through translation. The shorter the length of training program the less time available to develop the language comprehension necessary to absorb new content being presented.

## Suggestions

1. Make every possible effort to get national counterparts who already have on-the-job experience. This should make them better SAFGRAD employees and make advanced degree training more meaningful. Other donor support should also be aggressively sought by the OAU/STRC International Coordinator.



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2. Before making commitments for additional long-term or short-term training, except for national counterparts already identified for long term training, the OAU/STRC Coordination Office should conduct a training needs assessment as called for in the original Project Paper. This can identify the numbers needed in the various levels of professional and technical support for the SAFGRAD program in each participating country.

TABLE 2

DISTRIBUTION OF TRAINING PROGRAM PARTICIPANTS
(Currently in process or already completed)

| Country | Long-Term Training (Including Purdue) | | | | | | | SHORT-TERM TRAINING | | | | Total Training/ Country |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PhD | Area of Study + | MS | Area of Study | BS/NON | Area of Study | Total | IITA | ICRISAT | PURDUE | Total | |
| Benin | | | | | | | 0 | | 5 | | 5 | 5 |
| Botswana | 1 | PS | 1 | BR/S | | | 2 | 2 | 1 | | 3 | 5 |
| Cameroon | | | | | | | 0 | | 3 | | 3 | 3 |
| Chad | | | 1 | BR/MZ | | | 1 | 1 | | | 1 | 2 |
| Gambia | | | | | | | 0 | 3 | | | 3 | 3 |
| Ghana | | | 1 | * AG/CP | | | 1 | | | | 0 | 1 |
| Guinea | | | 3 | SL*,BR,PS | 1 | EN* | 4 | 4 | 4 | | 8 | 12 |
| Mauritania | | | | | | | 0 | 1 | | | 1 | 1 |
| Mali | 1 | EC | 3 | AG*BR,AG | 1 | AC | 5 | 1 | 1 | | 2 | 7 |
| Senegal | | | 1 | AG/S/M | | | 1 | 1 | | | 1 | 2 |
| Togo | | | 2 | BR/S/M,EC | | | 2 | | | | 0 | 2 |
| Upper Volta | 3 | | 2 | EC,EC | | | 5 | 5 | 15 | 1 | 21 | 26 |
| Zambia | | | | | | | 0 | 1 | | | 1 | 1 |
| Totals | 5 | | 14 | | 2 | | 21 | 19 | 29 | 1 | 49 | 70 |

* Completion of long-term training
\+ Area of study key (Major/Commodity)

MAJOR
AG-Agronomy
BR-Breeding
EC-Ag.Economics
EN-Ag.Eng
PS-Plant Science
SL-Soil Science

COMMODITY
S-Sorghum
M-Millet
MZ-maize
GN-Groundnut
CP-CowPea

# PROJECT MANAGEMENT

## Introduction

This evaluation of project management follows a classical approach by first examining the planned objectives and resources in an effort to evaluate implementation management in conjunction with organizational design and policy definition followed by an analysis of organizational design and policy procedures.

Efficient management, be it fiscal or research management, is not a goal *per se*. Good management is a tool to achieve the objectives of a project. Good management will normally go unnoticed. Bad management is obvious.

Project management cannot be totally disassociated from research and financial management or administrative relationships between the OAU/STRC International Coordinator's Office and other parties in the SAFGRAD project. Each area is discussed followed by suggestions and recommendations as indicative avenues to be taken to solve management problems. There are often other ways of reaching a similar result.

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## Project Management Resources

### Project Goal

According to the Project Paper, the broad goal of the SAFGRAD project is for:

> ....the establishment and development of a coordinated research and testing program for cereals and grain legumes, related farming systems and training of a cadre of African agricultural research scientists and technicians in semi-arid African areas.

### Expected Outputs

The Project Paper lists the following expected outputs:

- Problem oriented applied research;
- Basic research in plant breeding;
- Agronomic and managment practices for sorghum, millet, maize, cowpeas and peanuts;
- Field testing programs in various ecological zones;
- Direction for national programs in seed multiplication and crop protection;
- Feedback for scientists conducting adaptive research;
- Farming systems research under small farm and low input conditions;
- Increased liaison among researchers throughout the region through conferences, planning sessions and technical publications;
- Result sharing among member countries;
- Training of African agricultural scientists and technicians.



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The first of the specific objectives is: To develop a semi-arid African regional perspective in conducting research activities. This regional definition transcends preoccupations of the national research programs of member countries and the broader geographical and ecological scope of the major contractors in the project, IITA and ICRISAT. This regional definition is also different from those adopted by other regional organizations or programs such as, INSAH covering only the Sahelian countries, or IRAT catering mainly to the Francophone countries.

The SAFGRAD regional definition extends the exchange of experiences between Sahelian and other semi-arid countries of Africa irregardless of their Anglophone or Francophone agricultural research traditions.

Another objective of SAFGRAD is: To focus attention on low input, small farm agricultural conditions. This objective is clearly expressed in the Project Paper and is also addressed in two status papers prepared by USAID/UV in mid-1983 entitled, "IITA in SAFGRAD" and "ICRISAT in SAFGRAD." Both papers further amplified this objective by stating the project is to:

> Plan and conduct research on improved cereal production technology for adverse conditions including low soil fertility, periods of drought, the presence of harmful insects and plant diseases and the indigenous practice of mixed cropping.....selection of varieties that most effectively utilize available nutrients and water...

This strategy is well adapted for the regional dimension chosen by SAFGRAD. It is highly probable that major changes in methodology and inputs could do much to increase food production in Africa. However, in many SAFGRAD countries the ecological and

economic situation will not permit such broad changes. In other member countries, high input and high technology farming could bring important improvements in national food production, but such an agricultural revolution would most probably not be conducted in the semi-arid sector of these countries. Unless one does not [illegible] the [illegible] of entire population, as a limiting factor [illegible] agricultural research directed at production improvement in semi-arid Africa has to accept the constraint of the small farm and low input situation [illegible] the foreseable future.

A third objective of SAFGRAD [illegible] To develop linkages between national agricultural research programs, including farming systems research and pre-extension activities. Such linkages assume intensified liaison among researchers of both the research contractors used by SAFGRAD and those of the national programs.

Inputs Provided

According to the Project Paper the following inputs were to be brought into SAFGRAD:

- Senior Crop and Soil Scientists - These scientists were/are grouped in teams under IITA and ICRISAT contracts. The IITA team is stationed at Kamboinse, Upper Volta. The ICRISAT "team" was divided, with one person at Kamboinse, three at Samaru, Nigeria and one at Nairobi, Kenya.
- Farming Systems Research - A contract with Purdue University provided four researchers to work in a Farming System Unit in Upper Volta. For a time this

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team was located at Kamboinse with IITA and ICRISAT, but later moved to an office in Ouagadougou.

- Accelerated Crop Production Officers (ACPO) - Currently five of the 25 member countries have ACPOs. Four are funded by USAID. They provide technical assistance and support for field trials at the national level.
- Donor Support - In addition to financing the research contract and the OAU structure, USAID and other donors have contributed technical support. They have participated in the Technical Advisory Committee (TAC) and the Consultative Committee (CC). A Project Manager was provided by USAID during most of the project period.
- OAU/STRC Coordination - The Project Paper does not elaborate on the OAU/STRC coordination structure, other than by listing the roles that are expected. This central structure of the SAFGRAD project will be analyzed in more detail in the following section.

Relationship of Inputs to Outputs

The expected outputs were both numerous and ambitious. The results are covered in more detail in other sections of this report. However, it should be stated that SAFGRAD contractors left to themselves, IARCs and Universities alike, will provide research within their institutional framework and will tend to conduct it within the mainstream of their research programs and

resources. Any SAFGRAD specific orientation of these research activities must be enforced by the organization responsible for their funding.

The input of the ACPO component was adequately linked to the expected output. The ACPO was basically linked to operations within one national program.

Donor support is very important to SAFGRAD, but donors should not [illegible]ected to implement the activities or even be a major facto[illegible] the planning of these activities. The OAU/STRC Coordination Office has major responsibility for monitoring project activities. Together with the TAC and CC they should set overall policy and program guidelines. Since SAFGRAD plans to have more than one donor, it is important that clear research policies be established or donors may pull SAFGRAD in directions other than those [illegible]anned.

## The OAU/STRC Coordination Office

### Functions

The functions of the Coordination Office are listed in the Project Paper (pp. 73-74). However, the list does not go far in defining implementation mechanisms and nowhere does the Project Paper provide evidence of an organizational design effort for this all important component of the project. The Project Paper did not relate the functions of the Coordination Office to



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project objectives. When this is done, it becomes clear that the Coordination Office had the responsibility for:

- Orienting research toward specific SAFGRAD objectives by:
  - Orchestrating the planning process and preparing the TAC agenda;
  - Preparing research contracts with the research contractors.
- Ensuring regional diversification of field testing and the small farm low-input orientation by:
  - Obtaining national program participation;
  - Monitoring research activities of contractors;
  - Being regularly present in the field.
- Organizing feedback and liaison among researchers by:
  - Organizing conferences, workshops and by circulating publications;
  - Working with other programs and coordinating agencies.
- Developing a balanced training program by:
  - Assessing needs in relationship with national programs;
  - Defining selection criteria and establishing links with universities;
  - Following up on trainees during training and after they return to Africa;
  - Organizing short-term non-degree training sessions.

- Encouraging member countries and IARCs interest in SAFGRAD by:
  - Promoting the SAFGRAD concept;
  - Defining specific member country contributions to the research and development within individual national programs;
  - Preparing the CC agenda.
- Widening international donor participation by:
  - "Marketing" well defined sub-elements of the SAFGRAD Project;
  - Enlarging the network of institutions to conduct training.

This rather impressive list of areas of responsibility and related activities is the minimum expected of the Coordinating Office to maintain regular progress toward reaching the project objectives. No actual research activities are conducted by this office. Even related work such as the preparation and publication of committee, conference and workshop proceedings or the preparation of periodical progress reports and news letters that should be part of the scope of work, have been ommitted from this list. Nothing has been said of the responsiblities for administrative and financial management required for the day-to-day project implementation.



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## Resources of the Coordination Office

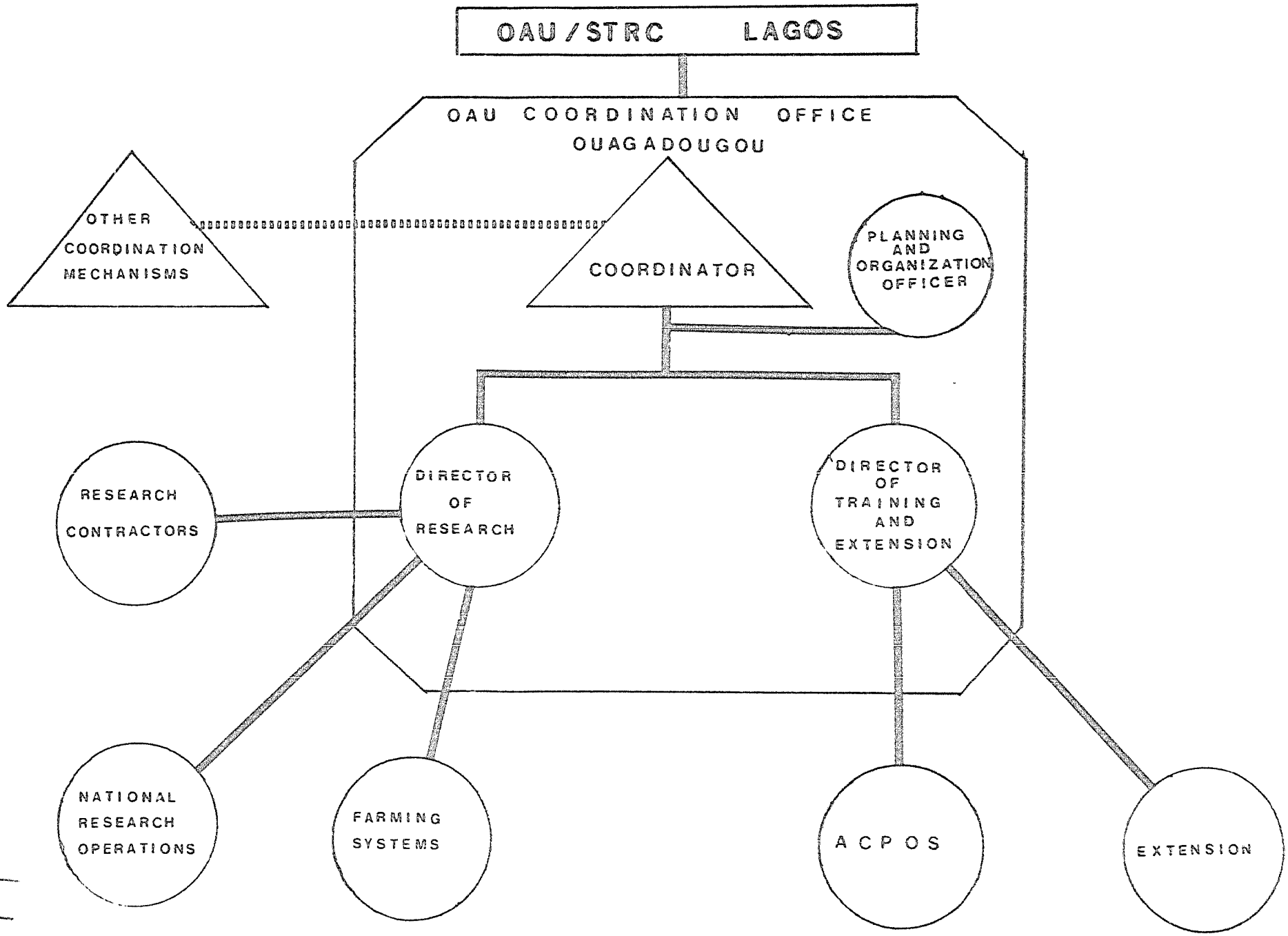
The Project Paper says little about the resources needed in the Coordination Office to carry this work load. According to the AID Audit Report of November 16, 1982: "The Project Paper envisioned the OAU Coordinator's Office in Ouagadougou as a small office with a staff of two to four people. The operating budget for the office was projected at $50,000 annually." The Audit concludes that with a staff of nineteen, the office is overstaffed. This broad statement of overstaffing could not, according to the USAID/UV Controller and Agriculture Development Officer, be substantiated.

In fact, during the period from 1979 to 1983, the senior staff of the Coordination Office consisted of the Coordinator and the USAID Project Manager. This was evidently insufficient to conduct essential activities to make reasonable progress toward SAFGRAD objectives. The lack of senior personnel was compounded by the fact that well trained medium level technical personnel were scarce and by the first Coordinator's strategy of almost exclusively conducting public relations.

In response to Recommendation 3 of the Mid-Term Evaluation, indicating attention should be given to the permanence of SAFGRAD, i.e. institution building, the summary attached to the PES of April 21, 1983, states the following:

> Until the evaluation, the permanence of SAFGRAD was of secondary concern. The USAID emphasis was, rather, on mobilizing research and transferring the information expeditiously to the member states....an expanded role for OAU/STRC should await the arrival of a new management team in the Coordinator's Office.

# ORGANIZATIONAL CHART 1



The starting elements of a new management team in the OAU/STRC Coordination Office are now in place with the appointment of the new International Coordinator and Research Director. They are highly respected by the research contractors, considered competent and honest by USAID/UV Mission personnel and they have favorably impressed the members of the evaluation team. In addition, two well qualified accountants with internationally accepted creditentials have been hired.

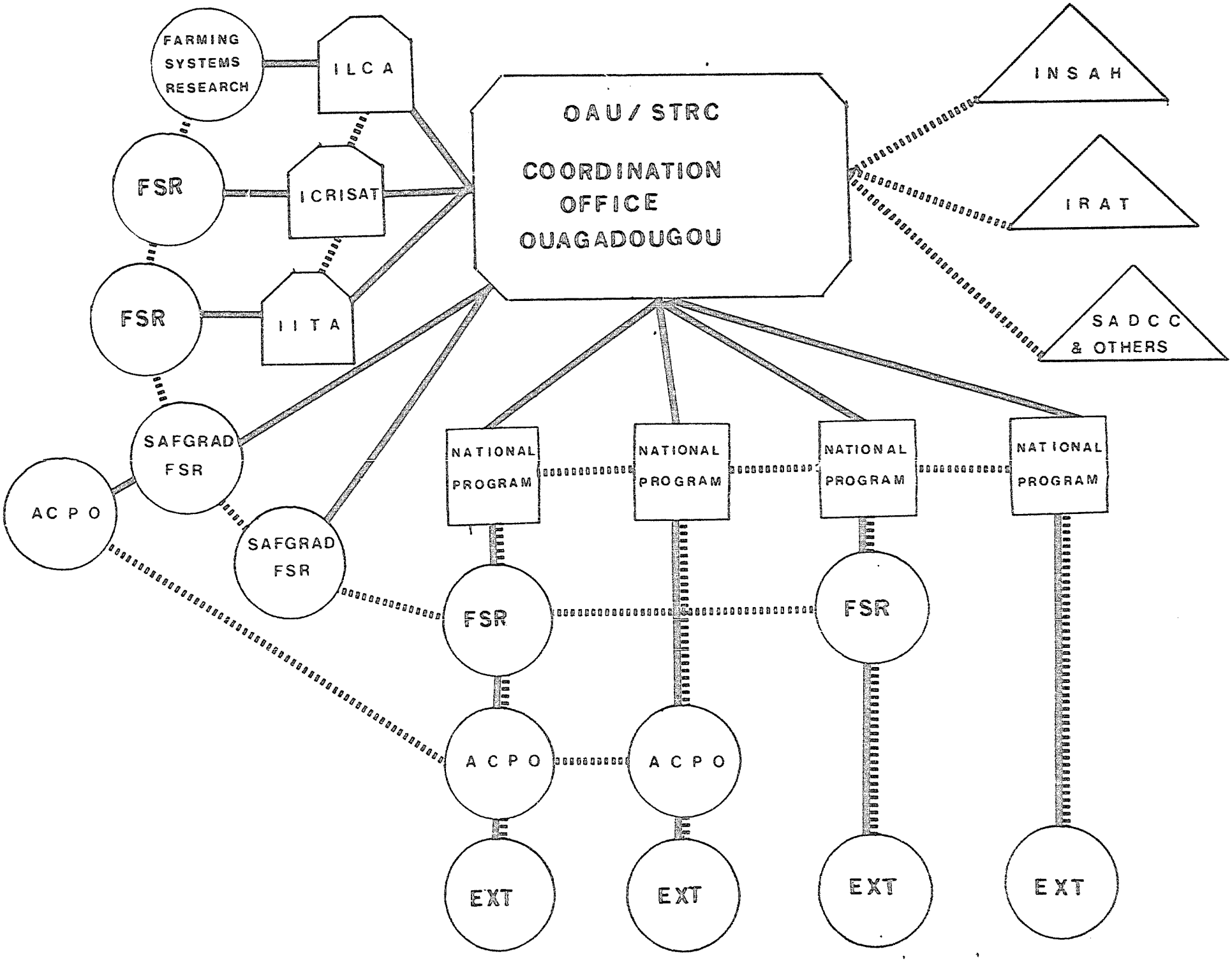
If the OAU/STRC Coordination Office is to realize what is expected of it, and by doing so give substance to the SAFGRAD concept, the Coordinator and the Director of Research should be supported by the addition of two senior staff members, a Director of Training and Extension and a Planning and Organization Officer. Organizational Chart 1, presents the suggested structure of the Coordination Office. A description of the qualifications and functions of the suggested additional staff are presented in Appendix G.

## Operational Network of SAFGRAD

Organizational Chart 2, illustrates the operational network that should be activated by the Coordination Office to realize the SAFGRAD objectives. The purely administrative aspects have been left out as they will be addressed in another section of the report.

As can be seen in Organizational Chart 2, three main areas of operations are identified in the SAFGRAD project under the OAU/STRC International Coordinator. One area relates to the production of SAFGRAD oriented research by IARCs with OAU/STRC

# ORGANIZATIONAL CHART 2



entering into a contractual relationship. A second area relates to the networking of Farming Systems Research in SAFGRAD member countries. The third area, focuses on the networking of the national agricultural research programs of member countries with ACPO and extension officer networks as a part of this area. Finally, a fourth more informal set of relationships would link the SAFGRAD regional approach to the often complementary operations of other regional entities like INSAH and IRAT.

## Relationship with International Agricultural Research Centers

Until now the contractual agreement between SAFGRAD and IITA and ICRISAT basically resulted from bilateral negotiations between the principal donor, USAID, and the IARCs. This has enabled the IARCs to pursue their own agenda with little or no guidance from AID or OAU/STRC. This procedure should be modified by making grants to OAU/STRC, who would then contract with the IARCs and be responsible for seeing they follow the general research policy guidance and priorities established by the TAC and CC.

The Evaluation Team supports this grant approach. As an accompanying measure USAID should assist OAU/STRC with the legal and contractual matters, at least for an initial period of time. This could be achieved by ensuring that OAU/STRC have access to highly competent legal and contractual counsel. USAID should fund this contract support so that it would have a strong say in the selection of legal and contractual expertise. This should ensure an orderly transition from the present situation to a more

responsible contract management for OAU/STRC. If, however, USAID has reasons for retaining the responsibility for negotiating these contracts, it should make OAU/STRC a major party in these negotiations and explore the possibility of having OAU/STRC co-sign the contracts.

The basic objective of the contracts with the IARCs is to obtain research skills and resources directed at the specific SAFGRAD agricultural development objectives. The Coordination Office as the operative OAU/STRC agency must develop an operational definition of those objectives and priorities from guidance provided by the TAC and CC. Given these objectives and priorities, the contractual management strategy of SAFGRAD should clearly take into account the institutional strategy of the contracting parties, namely IITA and ICRISAT.

IITA

The IITA/SAFGRAD management approach at Kamboinse has been successful in bringing together scientists, not all of them financed by SAFGRAD, to work as a team on the maize and cowpeas. The IITA team leader seems effective in generating team work and organizing the regional testing and monitoring effort required. He has also proven to be a good organizer in preparing conferences and workshops, and generating collaboration between donor and coordinating agencies. However, his efforts seem to have aborted when trying to establish intensive collaboration with the Kamboinse stationed group of ICRISAT scientists, one of whom is SAFGRAD financed.

ICRISAT

It has been difficult to identify the management strategy underlying ICRISAT's participation in SAFGRAD. The implementation outposts are scattered throughout Africa---soil and water specialist in Upper Volta, a sorghum breeder in Kenya and a small team working on sorghum and millet in Nigeria. As can be imagined, there is little feeling of "team" spirit among these widely scattered team members.

ICRISAT has the IARC mandate to work on the SAFGRAD crops of sorghum, millet and groundnuts. No work has been done on groundnuts under the SAFGRAD contract nor was such work stipulated in the ICRISAT contract. ICRISAT is establishing a major millet and groundnut research center in Niger to cover a region similar to SAFGRAD's regional interest for these crops. There have been discussions in ICRISAT of the possibility of establishing a major sorghum program in West Africa. SAFGRAD should recognize the emerging regional strategy of ICRISAT and treat it as a positive opportunity rather than as a limiting constraint.

## Farming Systems Research Network

Presently, one Farming Systems Research project is funded under SAFGRAD, the Farming System Unit in Upper Volta. In the coming months, SAFGRAD with IFAD funding plans to implement new farming systems research project activities. Aside from these

SAFGRAD funded FSR projects, there are other FSR operations in the SAFGRAD region. The IARCs also have FSR operations. In addition, many national programs have FSR projects of their own.

SAFGRAD could play an important role in FSR network by facilitating exchange of information among different FSR operations within the region. The objective of the network is to bring together researchers through conferences and workshops, and encourage farming systems research groups to address regional issues, related to the other SAFGRAD research components.

Management of the FSU Project

The Purdue University team's network of management relationships is very complex. It includes links between the team and USAID/UV; links between the team in the field and Purdue University; links between Purdue and USAID/Washington; links between the team in the field and the national agricultural program in Upper Volta, namely ORDs; links with other components of SAFGRAD research such as IITA, ICRISAT and the Upper Volta ACPO; finally links with the OAU/STRC Coordination Office.

While most of those relationships have been successful and well managed, this complexity may in itself explain that some links such as those with IITA, ICRISAT and the Upper Volta ACPO were not as close as they should have been. This web of contractual and operational relationships is largely outside the OAU/STRC sphere of operation. This complexity did little to enhance the OAU/STRC coordination role, a role that could have resulted in a better integration of the three different types of

research carried by the IARCs, FSU and the ACPO. The relationship with OAU/STRC Coordination Office and the FSU team has improved markedly since the appointment of the new Coordinator and Director of Research. Work programs, preparation for workshop participation and planning for linkages with other farming systems groups in the SAFGRAD region have been discussed.

The relationship of the Purdue Team with USAID/UV has been mostly related to the administrative process of project implementation and exchanges have been satisfactory. The FSU field team has had indirect bearing on the relationship between Purdue and AID/Washington, as it is consulted before extensions are negotiated to the contract.

The relationship of the FSU team with Purdue University have been satisfactory both on the administrative matters, as on the more substantive aspects of the project. Adequate support has been provided to the field team by Purdue, particularly through the presence at the University of an International Coordinator. Staffing has been provided mostly from Purdue regular staff, and in certain cases, effective overlap of personnel has been achieved.

Relationships with the national agricultural program of Upper Volta, specifically with ORD, have been activated in recent months, since the FSU team feels it now has sufficient data to have something to "sell."

Relationships with the IARCs have been weak and may have suffered from the decision of the FSU team to move its headquarters from Kamboinse to Ouagadougou. There has been some interaction with the breeding and agronomic operations of IITA

and with operations of SAFGRAD and non-SAFGRAD personnel of ICRISAT, such as the agricultural economist. The relationship with the Upper Volta ACPO has been minimal.

From the managerial point of view, the performance of FSU has been as good as that of the other institutional contractors. If one looks at the regional impact objective of SAFGRAD, FSU has had little impact. The target has been, in fact, readjusted to a more Voltaic approach for the model building phase. At this point in farming system research development, the FSU team feels that the model is in place and ready for regional impact. They favor achieving this impact by bringing people from various national programs to train in the FSU facilities. Participation in workshops on Farming Systems Research would also be a way of achieving regional impact. The FSU team has no plans to reproduce their experience in other SAFGRAD member countries.

## The ACPO Network

From the management standpoint, the ACPO program appears quite simple, though it has proven difficult to handle. The administrative complexity of establishing ACPOs in member countries may explain why so few ACPOs have been installed. On the substantive issues relating to their programs, it seems that the ACPO component of SAFGRAD was well managed. Timely progress reports have been transmitted to OAU/STRC. During monitoring tours and on other occasions OAU/STRC has kept in contact with the ACPOs.

The administrative aspects of the ACPO program is difficult to describe. When ACPOs are USAID funded expatriates, they are under direct USAID personal services contracts and relate to USAID/UV through the local USAID mission in the country where they are located and eventually also through the regional USAID office in Abidjan. National ACPOs operate under various contractual arrangements and are at least partially funded by AID. There is also a case of a French expatriate ACPO financed by French aid. The question of the ACPOs administrative arrangements from the management standpoint is clearly something that should be studied in order to develop more clearly defined policies.

While the actual work of the ACPOs is seen as productive, highly valuable and well managed on the substantive issues, the administrative handling of the ACPOs has created problems. This may have limited the benefits that ACPOs could have brought to the national agricultural organizations and to the SAFGRAD project. The ACPOs should be clearly linked to a national organization. The administrative process should be streamlined and their networking relationship with the OAU/STRC Coordination Office should be enhanced. to maximize the exchange of experience among the ACPOs. The expansion of the ACPO operations beyond the five countries now participating should be encouraged.

During the first phase of about four or five years, it appears more efficient to utilize expatriates as ACPOs. National counterparts may be trained during this period amd supporting staff trained. Contractual arrangements could accommodate both expatriate and national ACPOs. The expatriate ACPO could have a

SAFGRAD/OAU/STRC based contract whereas the national ACPO would be under contract with a national institution. In the latter case, a complementary contract agreement should be negiotated by OAU/STRC to support the national ACPO and ensure that he will be in a position to participate in SAFGRAD networking activities.

## National Programs Network

All member countries of SAFGRAD have national agricultural research operations that are structured in many different ways. The objective of a SAFGRAD network of national research programs is not to standardize the organizational format, but to share experiences considered to be mutually beneficial to members. Such results have been attained by workshop participation, training programs, regional trials and visits on monitoring tours. Countries where research centers or ACPOs are located generally have more intensive participation in SAFGRAD. This may also be the case for those countries where members of the CC or TAC reside.

It is the responsibility of the OAU/STRC Coordination Office to reflect on the conditions of membership and to propose for adoption by the CC, a policy on contributions by member countries. This would not necessarily take the form of a membership fee and such a policy should have suffient built-in flexibility to adapt to the varying conditions of the national programs.

## The Coordination Role of SAFGRAD

The coordinating role of SAFGRAD may seem duplicative in view of a proliferation of international and regional institutions such as IITA, ICRISAT, CIMMYT, IRAT and CILSS/INSAH. However, a closer analysis of each one of them reveals that they are limited in scope and geographic coverage.

Among the SAFGRAD crops IITA covers only maize and cowpeas. ICRISAT covers only millet and sorghum and CIMMYT only maize. Furthermore, IITA covers only West and Central Africa, while CIMMYT covers only Eastern and Southern Africa. Even in West Africa, it is highly unlikely that IITA would have started research in the semi-arid zones to the current extent had it not been for the SAFGRAD project. IRAT is engaged only in the Francophone countries, while CILSS/INSAH is limited to the eight Sahelian countries of West Africa.

SAFGRAD, due to its OAU umbrella has been able to bridge the rift not only between eastern and western Africa but also between Anglophone and Francophone Africa. SAFGRAD is seen as an African institution, building other African agricultural institutions. Its acceptance by African Governments is much more positive and receptive than that employed by most other external bilateral and international institutions. SAFGRAD has also the potential for mobilizing political support for the cause of agricultural research in Africa whenever it is required.

Among the international institutes ICRISAT and CIMMYT have global mandates, which tend to dilute their African focus. The mandate of the IARCs limits them only to research activities.

The extension and development implications of new technologies are areas where they are reluctant to become involved. For instance the ACPO program for creating the necessary linkage between national agricultural research institutions and the extension programs would have been unthinkable by the IARCs.

SAFGRAD provides an OAU mechanism for channeling additional funds for agricultural research and training in Africa. Already IFAD is providing the Director of Research and considering funding of a three year US$3.79 million farming systems research project. The current management team in the OAU/STRC Coordination Office is competent and should succeed in attracting more funds from the international donor community during SAFGRAD II.

Furthermore, SAFGRAD should be able to promote better cooperation between IITA, ICRISAT and other research partners in carrying out joint agronomic research in areas common to all crops (e.g. striga control, animal traction, soil and water management and farming systems research). The current lack of institutional cooperation is inimical to advancing technology generation. SAFGRAD should be able to achieve this through the influence of its CC and TAC, of which these research institutions are members.

## USAID Research Management of SAFGRAD

Outside of the Project Manager's role in developing the OAU/STRC Coordination Office and laying down the basis for networking activities during the first years of the SAFGRAD

project, USAID has had little to do with the day-to-day management of actual research. However, on the more strategic, long-term planning level, it has had much bearing on the development of the activities that have taken place.

By its participation in the TAC and CC meetings, USAID was in a key position, as the main donor, to influence the planning and the management strategy of SAFGRAD. The policy of USAID has been to maintain a low profile at these meetings. This policy can well be defended and could increase the viability of SAFGRAD in the long-run, as well as make participation by other donors more attractive. However, AID could have exercised more pressure to have more frequent meetings of the TAC and CC particularly in the early years of the project without departing from this policy.

It was by negotiating direct contracts with IITA, ICRISAT, Purdue University and the ACPOs that USAID has had its most important influence on the research activities. These contracts have, in fact, determined the actual amounts committed to the various components of the SAFGRAD program. Direct negotiations of contracts by AID may also have minimized the actual integration of the program and retarded the development of the coordination capacity, so central to the SAFGRAD concept.

The purpose of using the OAU structure to bring coordination in the research effort may have been significantly defeated by depriving OAU/STRC the power of contract negotiations. Direct negotiation of the contracts by AID may also have limited the input of the Coordination Office in the definition of issues and

priorities to be incorporated in the content of those contracts. It must be recognized, however, that the decision to negotiate directly with the research contractors may well have accelerated the implementation of the project.

## The CC and TAC as Management Tools

The Project Paper correctly anticipated the complexity of managing the SAFGRAD project by stating:

> Overall, SAFGRAD program direction is likely to suffer from the normal apathy of national governments in directing regional projects. Projects like SAFGRAD, despite their great aggregate importance to the region, do not loom large enough vis a vis individual national perceptions or budgets to command significant national management resources....The membership of the CC and its subcommittee appear relatively unwieldy from a management point of view.[1]

For most of the projects's life these committees were relatively inactive. Activation of the TAC and CC started about the time of the Mid-Term Evaluation in 1981 when a strong recommendation was made that these committees should meet. The OAU/STRC International Coordinator sees the value of these committees and from all indications a well prepared agenda and staff work for the November 1983 meeting of the CC and the January 1984 meeting of the TAC invited active participation by members.

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[1]SAFGRAD Project Paper, p. 106.

At the meeting of the CC, the question of effective definition of membership in the CC and TAC has been tackled and resolved in a satisfactory manner. Participation by other coordinating agencies such as INSAH has been assured and an effective representation formula has been devised for member countries. The summary of proceedings from the CC reveals a clear grasp of the situation and of the avenues that must be explored. Many recommendations of this Committee are supported by the Evaluation Team.

The present management of the OAU/STRC Coordination Office is utilizing the CC and TAC along the lines envisaged in the Project Paper. We applaud this effort and encourage regular meetings of both the TAC and CC. We would, however, caution that while benefits can accrue to SAFGRAD from the efficient working of the CC and TAC, it does not transform these entities into effective executive tools of research management. The actual research management must be conducted by the contracted IARCs and universities and under the direction of the various national research programs. The actual research coordination mangement will be conducted by the staff of the OAU/STRC Coordination Office. The role of the CC and TAC in a management sense will be that of establishing policy guidelines for general planning, identification of research problems of a regional significance, monitoring progress toward their solution and establishing corrective courses of action where needed.

## Financial and Administrative Management

### SAFGRAD 1978 - 1985

Fiscal management of SAFGRAD has been the center of attention of USAID/UV, AID/Africa Bureau and OAU/STRC for over two years. Triggered by a USAID/UV requested audit of the OAU/STRC Coordination Office, the audit questioned the use of funds managed by the previous Coordinator amounting to about ten percent of the total project funds used at that time. Before discussing the audit, it would be well to look first at the overall expenditure of project funds.

The evolution of funding and expenses of the SAFGRAD project is presented in Table 3. It shows that the USAID funding for the SAFGRAD project was approved at $14 million in 1977 and has subsequently been increased to $19 million for the period ending March 1985. The increased funding is not surprising since the planned five year life of project has been extended to eight years.

Given the delays in initial implementation, a comparison of the data for the end of 1983 and that of the original budget provides a global view of financial performance. In doing so, it becomes clear that financial control over-all has been very good. Less than $14.5 million was spent by the end of five years. A closer analysis of Table 3, reveals, however, that the absolute and relative appropriation of funds among the various components

TABLE 3
SAFGRAD PROJECT

EVOLUTION OF FUNDING AND EXPENSES

| Project Components | Estimates in Project Paper ($ 000) | % | Earmarked as of 11-13-83 ($ 000) | % | Estimate Expenses to 12-31-83 ($ 000) | % | Estimate Expenese to 3-31-85 ($ 000) | % |
|---|---|---|---|---|---|---|---|---|
| PURDUE | 1423.50 | 12.40 | 3336.80 | 22.00 | 3131.80 | 21.60 | 3909.10 | 20.90 |
| ICRISAT | 2280.50 | 19.80 | 2184.10 | 14.40 | 1972.50 | 13.60 | 2723.80 | 14.50 |
| IITA | 1423.50 | 12.40 | 4316.90 | 28.40 | 4214.50 | 29.10 | 5305.50 | 28.30 |
| ACPO | 2562.50 | 22.30 | 1587.10 | 10.40 | 1612.60 | 11.20 | 2004.80 | 10.70 |
| TRAINING | 2000.00 | 17.40 | 949.10@ | 6.30 | 890.50@ | 6.20 | 1169.10@ | 6.30 |
| COORD.&CONFER. | 550.00 | 4.80 | 1676.50 | 11.00 | 1492.00 | 10.30 | 2171.90 | 11.60 |
| CAPITAL & OTHER | 1247.00 | 10.90 | 1141.90 | 7.50 | 1159.90 | 8.00 | 1447.90 | 7.70 |
| Total | 11487.00* | 100.00 | 15192.40** | 100.00 | 14473.80** | 100.00 | 18732.10** | 100.00 |
| PROVISIONAL | 2411.00 | | | | | | | |

@ The training components of the contractors activities included
* Estimates based on project paper of pp.52-53.
** Estimates based on funding of $19,169,000 by USAID/UV, Controller's office and does not reflect the total life of project.

of the project are far from the budgeted allocations. Such discrepencies are not necessarily detrimental to the achievement of project objectives, but they do warrant further scrutiny.

Before turning attention to the variation between budgeted and actual funding of the various components, it should be noted that the column entitled "Earmarked" in Table 3 as well as in the USAID financial documents provided for this evaluation, should not be used as benchmark references. It may be used as a reference point to follow-up on the actual distribution of funds among components since it includes actual expenditures in various contractual arrangements during the life of the project. Since there were no significant amendments to the project, one gains the impression that actual funding of the various components resulted more from the negotiating ability of the various contractors and from the implementation constraint of certain planned actions than from the planned redefinition of the strategy.

Turning to the actual discrepencies observed between the planned and actual expenditures, the following conclusions can be drawn:

- The first contractors to start work under USAID negotiated contracts have largely exceded their share of funds i.e., IITA and Purdue. Purdue was to receive 12.4 percent of the funds, while present estimates are that they will receive 20.5 percent. IITA will receive 28.3 percent compared to 12.4 percent budgeted. In contrast ICRISAT started work late and its share will be 14.4 percent compared to the 19.8 percent budgeted.

Since ICRISAT, according to the project paper, is to work on sorghum, millet and groundnuts, it is quite clear that those crops which were supposed to receive maximum attention, will have been provided the least funds.

- Globally the three international research contractors, IITA, ICRISAT and Purdue were to spend close to 45 percent of SAFGRAD funds. By March 1985, they will have spent over 63 percent of the funds appropriated.
- The OAU/STRC Coordination Office also obtained a much larger share of funds than was budgeted. Even if a very small part of this difference can be explained by some mismanagement of funds, the largest part is due to errors in design of the initial project. It was not clearly understood at the beginning that the Coordination Office was the key element for the implementation of the SAFGRAD concept. Both the mid-term and the present evaluation reached this conclusion. The increased budget of the OAU/STRC Coordination Office resulted from adjustments to this fact, but this project component is not sufficiently developed.
- Capital and other costs were kept in line with what was initially budgeted, in absolute dollars. The decrease in percentage is due in part to the non-appointment of a USAID Project Manager for a period of the contract

and in part to the fact that many captial costs were not recurrent as the project's life was extended.

- The big losers in the distribution of project funds were the ACPO and Training components. The ACPO program was to receive the most important share of funds with 22.3 percent. In fact, they will come out fifth in 1985, with 10.5 percent. The present evaluation concludes that the ACPO program is not only one of the most effective components of the program, but also one that will create long-term effects on the national programs of SAFGRAD member countries. Even if it remains difficult to estimate lost benefits due to the relative lack of development in the program, such losses can be considered important.

  The training component has lagged behind target funding, even more than the ACPO program. By project end, less than 60 percent of the funds budgeted for training in 1977 will have been spent. In relative terms, training that was to receive 17.4 percent of funds, will have received 6.3 percent. If one considers that training of African nationals could be one of the most productive and longest lasting investments that SAFGRAD can provide, the loss is necessarily important.

The important differences between budgeted and actual expenditure cannot be linked to major amendments that would have modified the implementation strategy. Rather the linkage appears to be related to negotiating capacity and ability by the institutional contractors to use additional funds and to the implementation constraints of the ACPO and training programs. Funds have not been spent on the planned activities and the loss of benefits due to the much reduced activities in ACPO and Training programs could be quite important. The observed imbalance might have been reduced if the Coordination Office had had a larger say in contract negotiations and if that matter had been brought to the attention of the CC early in the project.

## OAU/STRC Coordinator Office Audit

At the request of the USAID/Upper Volta, the AID Regional Inspector General for Audit, Abidjan, Ivory Coast, performed an audit from July to October 1982 on the OAU/STRC Coordinator's Office to determine:

> .....the amount of cash shortage and to review the records and financial practices....as they relate to the property of expenditures made with AID funds....review AID's follow-up procedures to determine whether it had taken appropriate action on the recommendations of an Evaluation Report that had been made of the SAFGRAD program.

The Audit Report was officially issued November 16, 1982 noting rather serious evidence of project mismanagement. Among the major findings they reported:

- The Coordinator's office was budgeted for an annual expenditure in the project paper of $50,000 for a staff of two to four people. By February 1982, the budget

had grown to $247,000 with a staff of 19 people. "Financial policies and practices of the office were deficient in almost all respects."

- An unexplained shortage of $27,739.
- AID financed construction contracts awarded without competitive bidding and/or AID approval.
- USAID's financial monitoring was found to be "deficient." The Project Officer administratively approved financial reports without any substantive review or knowledge of the OAU Coordinator's financial management practices. To compound matters, USAID Controller personnel did not review the financial practices of the Coordinator's office during the first four years of the project.
- The Project Evaluation Summary (PES) was not prepared for the Mid-Point Evaluation conducted in 1981.

The IG/Audit made ten recommendations to improve financial and administrative management of the project. As a result of the Audit, the contract of the first SAFGRAD OAU/STRC Coordinator was not renewed, other staff changes were made and the OAU/STRC Office in Lagos dispatched financial management staff to establish a financial management system and efforts were made to recover the outstanding cash. The USAID/UV Mission has taken steps to provide responsible financial and administrative management of project funds. The audit recommendations have been cleared per Action Memorandum for the Assistant Administrator for Africa from William H. Naylor, Jr. AFR/RA dated August 18, 1983.

A major US accounting firm, Arthur Anderson, has reviewed the financial and management control procedures in the OAU/STRC Office in Ouagadougou and Lagos to strengthen their accounting practices. The Firm has produced a set of forms and procedures that are gradually being implemented under the supervision of the USAID/UV Controller.

The vouchers prepared by the Coordination Office in Ouagadougou are routed to OAU/STRC/Lagos for approval and are then submitted to USAID/UV for payment. Given the present set-up of delegation of authority between OAU/STRC/Lagos and OAU/STRC/Ouagadougou, this is felt to be necessary in order to reflect the accountability of the OAU/STRC/Lagos. Given the difficulty of communications in Africa this measure has some obvious draw-backs and alternatives should be pursued.

As a reaction to the Audit, a clarification of responsibility was affected within AID, between AID/Washington and AID/UV, not unlike that suggested for OAU/STRC:

> ....AFR/RA must officially transmit to OAU/STRC/Lagos notice that USAID/Upper Volta is designated as an additional representative of the US Government. In particular, OAU/STRC/Lagos should be notified that all official communications regarding project implementation, monitoring, evaluation and completion should be sent to USAID/Upper Volta as the primary respresentative of the US Government. OAU/STRC/Lagos should also be advised that any communications concerning major changes in the project requiring modifications to the project agreement should be sent to AFR/RA.[2]

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[2]Source: Clarification of USAID/Upper Volta Project Management Responsibilities of the Semi-Arid Food Grain Research and Development Project, dated 3/21/83 drafted by John A. Becker, OAG Attachment I to a memorandum drafted by R. Gray of conversation on SAFGRAD Project, Ouagadougou, February 14, 1983.

This proposal encourages more efficient management of the SAFGRAD project and places administration closer to the action. It may be more efficient, however, for OAU/STRC/Lagos to delegate authority and responsibility for day to day financial management to the OAU/STRC Coordinator in Ouagadougou. If such action is taken, the voucher routing procedure through Lagos could be avoided.

Very commendable work has started on the preparation of a procedural package for the fiscal management of SAFGRAD. This package contains a mixture of OAU and AID procedures, mutually agreeable to both parties.

Two internationally accredited accountants have been recruited for the OAU/STRC Coordination Office in Ouagadougou. The selection panel included the Chief Accountant of the Regional Financial Center, USAID/Nairobi. These accountants, one IFAD funded and the other AID funded, have joined the OAU/STRC Coordination Office in Ouagadougou. With these additions, the Coordination Office is now in a good position to implement an effective accounting and control system.

## The USAID Project Manager

During the evaluation it became apparent that USAID/UV and the OAU/Coordination Office did not share the same views on the role of the Project Manager to be appointed by USAID for the SAFGRAD project. The Coordination Office prefers an experienced agricultural officer who would be a professional colleague and could essentially fill the position of the Planning and

Organization Officer outlined in Appendix G. Having just come through a rather painful audit, USAID/UV saw this person as someone who could assure the Mission that proper implementation procedures were being followed i.e., more concern with the process than with the substance of the SAFGRAD project.

Given the fiscal management background of this project, perhaps these two functions should not be combined in the same person. As indicated above, the issues of fiscal management are of central importance to a smooth operation of the project. The Planning and Organization Officer should be a permanent member of the OAU/STRC Coordination Office executive staff. The AID project manager will, of course, need to concentrate on the USAID interests in the management of the project. Even so, the Project Manager will be a contract employee and, hopefully, may also be able to help with the general organizational work of the Coordination Office. A direct hire Project Officer will still need to sign official documents. The relationship of the USAID Project Manager and Project Officer needs to be carefully studied in the development of the SAFGRAD II project to see that both the needs of USAID and OAU/STRC are met.

## SUMMARY

The SAFGRAD Project was designed to plan and conduct research on cereal grains in the semi-arid areas of Africa. Unfortunately, the designers did not recognize the need for

developing the institutional framework to support the research and extension network for transfer the results to the ultimate user---the farmers.

In this section the administration and fiscal management aspects of the project are analyzed by first discussing the project paper in retrospect. We then considered the events that have transpired during project implementation. Discussion centers on the OAU/STRC Coordination Office and its relationship with the International Agriculture Research Centers, coordination with other donor/regional organizations and SAFGRAD's role in establishing networks for the research, ACPO, farming systems and training components of the project in the member countries.

While there are many management problems, the OAU/STRC Coordination Office under new leadership and activation of the TAC and CC appears to be in a good position to exert a positive influence on research and extension of food grain crops in the 26 member countries.

As a result of the AID Audit, financial management of the Coordinator's office is much improved and two internationally acceptable accountants have been hired. A positive working relationship exists between OAU/STRC and the USAID/UV Financial Management Office as they work out the details of an acceptable financial management system.

To date the OAU/STRC Coordination Office has had little to say about the expenditure of more than 60 percent of project funds as AID contracts directly with IITA, ICRISAT and Purdue University. OAU/STRC is not a party to these contracts.

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Globally expenditures of project funds has been about as planned, although the institutional contracts have exceded planned financing at the expense of the ACPO and Training components of the project.

## CONCLUSIONS

1. The 1982 AID internal audit was a major event in the SAFGRAD project that resulted in changes in staff and operating procedures.
2. While the project funds have increased from $14 to $19 million since the project was started in 1977, in a global sense it has spent the funds about as orginally planned.
3. Far more funds were spent on institutional contracts than was originally planned and far less on training and ACPOs.
4. It appears that negotiating ability of the institution may be more important in obtaining funds than the importance of a particular commodity in the project. For example, ICRISAT received about half the funds received by IITA, even though sorghum and millet are perhaps the most important crops for the target farmers.
5. A new management team is in the OAU/STRC Coordination Office is now in place with the appointment of an International Coordinator and Director of Research. Both are highly respected and acting responsibly in activating the CC and TAC.

6. The basic objective of the institutional contracts AID has signed with IITA, ICRISAT and Purdue is to obtain research directed at specific SAFGRAD agricultural development objectives. The OAU/STRC is not a party to these contracts and has little to say about their progress.

7. While the actual work of the ACPO is seen as productive, highly valuable and well managed on the substantive issues, the administration management of the ACPOs has created problems that have limited the benefits they could have brought to the national agricultural organizations and to SAFGRAD.

8. Relationship with other agencies continues to be an area of concern, but coordination is being explored in the TAC and CC.

9. By negotiating direct contracts with the institutions, AID had its greatest influence on research activities. While this procedure may have accelerated the start-up phase of the project, it may have retarded the coordination of research activities---a major objective of the project.

10. The present contractual arrangement with IITA has provided a multi-disciplinary, multi-crop team to work specificially for SAFGRAD and is well within IITA's global strategy.

11. The ICRISAT contract provided for team members in widely scattered locations that was difficult to manage.

## RECOMMENDATIONS

The recommendations listed below, are made for improving SAFGRAD project management as agreements or contracts are negotiated during the current project and beyond.

1. Two senior staff members should be added to the personnel of the OAU/STRC Coordination Office in Ouagadougou: A Director of Training and Extension and a Planning and Organization Officer.
2. AID should include OAU/STRC as a major party in the negotiation of contracts. This could be achieved by:
   - o Making a grant to OAU/STRC who would then award the contract. As an accompanying measure AID should assist OAU/STRC in the legal and contractual matters at least in the initial stages, or;
   - o AID could retain the negotiation of the contracts under its responsibility, but include OAU/STRC as a major party and a cosigner of the contract.
3. OAU/STRC Coordination Office should explore flexible contractual arrangements to achieve networking of FSR and ACPOs.
4. In the negotiation of contracts and implementation planning of the SAFGRAD Project, efforts should be made to ensure that the various components of SAFGRAD activities receive the resources that are budgeted. Major changes in the implementation of the project should correspond to clearly stated policy modifications.

5. The procedures developed for the administrative and fiscal management should correspond to the present situation of the organization of the OAU/STRC Coordination Office. This situation is no longer the one discovered at the time of the audit. The preparation of a procedural package based on OAU and AID procedures should be pursued as diligently as possible and implemented.

6. OAU/STRC/Lagos should make a clear delegation of authority and responsibility to the OAU/STRC Coordination Office in Ouagadougou.

## ECONOMIC ANALYSIS

The center piece of the SAFGRAD concept is the explanation of low agricultural output in the semi-arid regions of Africa due to the lack of improved agricultural technologies adapted to small farm conditions. The major thrust of SAFGRAD was, therefore, aimed at the generation of such technologies for the major crops grown in the zone, namely sorghum, millet, corn, cowpeas and groundnuts. In the SAFGRAD project paper, nearly 45 percent of the total cost of $13.9 million was allocated for generating such technologies through regional research. About 22 percent of the project funds was earmarked for the ACPO component aimed at fostering linkages between:

- regional research and national research activities and;
- national research and national extension programs.

The training of African scientists and medium level research personnel was considered paramount and allocated about 17 percent of the project funds. The remaining 16 percent was earmarked for financing the SAFGRAD Coordination Office, which was charged with the responsibilities of coordinating regional research by organizing scientific conferences and workshops, promoting regional variety trials on experiment stations and farmers' fields and facilitating the exchange of scientific information through reports and publications.

All these components of the SAFGRAD project have been implemented with varying degrees of vigor and success. However, the relative proportions of the actual expenditures have been drastically altered. To begin with the total allocation of funds have been increased to $19.16 million. Expenditures on generating technologies have been nearly 64 percent as compared to 45 percent in the project paper. The ACPO component constituted only 11 percent of the total project cost instead of 22 percent as envisaged in the project plan. The training component registered only 11 percent of the total project cost instead of the 17 percent allocated to it in the project planning document. Expenditures for the SAFGRAD Coordination Office are estimated at 19.3 percent of total project cost as compared to the planned 15.7 percent. For detailed analysis of project expenditures see Table 3.

It is very difficult to attempt to relate the benefits attributable to the different components of SAFGRAD for the estimated $19.16 million invested. The generation of new technologies in the form of new varieties of crops and improved agronomic practices to bring about significant increases in agricultural production ordinarily takes a long period of time. It must be recognized that efforts to develop these for semi-arid regions is at the most difficult end of the research spectrum and will require an even longer time than research in the more favorable agro-ecological zones. The experience of ICRISAT in the Indian sub-continent (with a rich and long tradition of national research) shows that it takes up to seven years to



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develop technology options under research conditions. It takes more than two years to conduct on-farm verifications of these options and more than two years to prepare the technology package for dissemination to farmers. ICRISAT estimates that up to 20 years will be required for the widespread adoption of technology in the ecologically suitable area (ICRISAT, 1982). The time required for the development of technological break throughs in unfavorable semi-arid regions of Africa should not be underestimated.

The importance of continuing to support research activities and their potential impact can only be realized by considering the alarming food crisis in the semi-arid regions of Africa, where close to 90 million people rely on these crops for their subsistence. Per capita food production in Africa has declined during the last decade in the face of rapid population growth. FAO estimates that the index of total food production per capita declined by ten percentage points from 1970 to 1980, while population was growing at nearly three percent per annum. Cereal outputs in the semi-arid regions of Africa has been growing by one percent per year. This increase is primarily due to expansion of cropped area, implying that agricultural productivity is in fact declining. All of the Sahelian countries are net importers of cereals, averaging about 425,000 tons annually. This is an important foreign exchange drain on their vulnerable economies. Furthermore, the steadily growing population is upsetting the long standing traditional adaptation of food crop production to the fragile soils of the semi-arid

regions. Grass fallows are giving way to permanent cultivation or to shorter duration of fallow. More marginal soils are being cropped leading to a deterioration of the resource base.

Reversing this unfavorable trend of a burgeoning food gap accentuates the need for bolder approaches and substantial increases of investment in agricultural research and development. The development of drought and disease resistant cultivars of food crops and farming systems suited to small farmers in the semi-arid regions of Africa will have enormous economic benefits. First, there will be the direct benefits to be derived in increased food production per unit of land through increased yields and reduced losses due to disease and pests. Secondly, there will be increased availability of fodder for livestock to produce meat and milk as well as provide power for the production of food. Third, it has been amply documented that farmers in the semi-arid tropics suffer from inadequate nutrition. Increased food production at the farm level will not only ameliorate the situation but will also increase the effectiveness of the labor supply to produce more food.

Finally, increased food production in the semi-arid regions will have substantial effects in stimulating other sectors of the economy. It will generate business and employment in transportation, storage, input supply, credit and food processing industries. Furthermore, increased farm income will generate effective demand and open a big rural market for consumer goods, thus stimulating the industrial sector.

The Project Paper estimated that a one percent increase in the yield of the SAFGRAD crops in the original 18 member countries would generate a net incremental benefit of $20 million annually. The present value of that dividend in perpetuity discounted at 15 percent is over $130 million. Presently the SAFGRAD member countries have increased from 18 to 25. ICRISAT's experience in Asia shows that yield increases of over 15 percent can be expected. One does not have to stretch ones imagination to realize the enormous potential benefits of even modest break throughs of yield increases of one to five percent. This will amount to several hundred millions of dollars in comparison to research outlays of less than $50 million.

Possible Contract to Improve SAFGRAD Coordination

We have been asked to look at possible cooperation with the International Food Policy Research Institute (IFPRI) for improving SAFGRAD's coordination activities. We believe that it is ISNAR rather than IFPRI that has a capacity to assist in such matters. As its name implies, IFPRI concentrates its efforts on investigating and analyzing policy issues that affect food production. These include, among others, pricing policy of both inputs and outputs including subsidies, infrastructure for input supply as well as output marketing, expenditures on agricultural research and extension, agricultural taxation, food export policies and import policies, etc. It has conducted numerous studies in these fields and published the results. It held a

major conference on Accelerating Agricultural Growth in sub-Saharan Africa at Victoria Falls, Zimbabwe in 1983. IFPRI's research as well as those of other international, regional and national agricultural research, planning and development financing institutions was brought to bear on the theme of the conference. We believe IFPRI can address these research issues with its own resources. We see no capacity in IFPRI to assist SAFGRAD in improving its coordination activities.

On the other hand, ISNAR, which is also supported by the CGIAR, has been set up for servicing national agricultural research institutions in developing their capacity to conduct effective research. Among its functions, ISNAR assists in assessing the manpower needs of these institutions and in drawing up plans and projects for bridging the gap between current and future supplies and requirements. ISNAR also assists in the evaluation of current research activities and offers advice on corrective actions to make it more effective. It conducts regional and international seminars and workshops and courses on research methodologies, the planning and management of agricultural research and the training of medium level cadre of agricultural research assistants. A linkage between SAFGRAD and ISNAR can foster such assistance to SAFGRAD member countries and also increase the effectiveness of SAFGRAD in its networking and training activities. We strongly recommend that SAFGRAD takes immediate initiative to contact ISNAR on these matters.

## LOOKING AHEAD TO SAFGRAD II

During the remaining year in the current project there is little need nor opportunity to alter the present course of action. We do emphasize, however, the need to maintain the momentum being achieved and to further develop the TAC, CC and SAFGRAD Coordination Office as guidance and implementation bodies.

Many involved in project implementation are looking forward to a SAFGRAD II project. The TAC and CC have discussed plans for the follow-on project. AID has included funds in its forward planning budget for such an event. The evaluation team agrees that the current project has laid the foundation for a research coordinating mechanism that has the potential for making an impact on food grain research in a major portion of Africa.

During the course of our rather intensive review, we have identified a number of issues which we think need serious consideration in any follow-on effort. Time does not permit full exploration, but we do wish to share our thoughts. First we are sharing rather general impressions to be followed by more specific suggestions that emerged during the reviews of project components.

We recognize there may be other ways of coordinating a f cused regional research project (possibly through the IARCs or other sub-regional institutions). We conclude the OAU probably offers the best alternative for serving as a facilator in addressing food grain research problems across this vast ecological zone of Africa. OAU affiliation can ease movements of personnel and materials across borders. In some cases member countries are more apt to release scientists to work on an OAU/STRC/SAFGRAD project than they would be to release them to USAID or to one of the IARCs. OAU/STRC to date has kept its involvement in SAFGRAD on the professional/technical level and has avoided political considerations. Many people we talked to see SAFGRAD as an OAU/STRC project rather than a USAID project, thus gaining important African country support and hopefully attracting other donor financing.

There must be a recognition of the institutional development needs of SAFGRAD. Many of the early problems in the current project, in our opinion, were caused by not having a clear picture of what was expected at the end of the project. Thus, the administrative structure was not developed to implement a project that basically has a sound technical base. OAU/STRC appears to be the appropriate institutional mechanism for this effort with major emphasis placed on the OAU/STRC International Coordinator's office in Ouagadougou. Some areas of administrative management in the International Coordinators Office that should be explored:

- Again review and determine the role of the Coordinators Office and develop a strategy for providing the staff and resources needed to do the job. AID has imposed a staff ceiling of 14---this may or may not be realistic.
- A reasonable level of staffing should be determined after the role and function of the office have been re-defined and agreed upon by the International Coordinator, the CC and USAID/UV Mission management.
- As we see it, SAFGRAD can play a major role in facilitating research and the spread of research information among member countries through:
  - Commodity research networks including workshops and conferences;
  - Publishing the proceedings from these meetings;
  - Distributing research information;
  - Seeking funds from international donors to do specific kinds of research that are common to several countries;
  - Providing funds for training of research workers where shortages of skilled technical people exist.
- AID and other donors need to feel confident that proper accounting and management procedures are followed, but should not place excessive restrictions on management. (The US Government, in our opinion, over-reacted to the audit, resulting in SAFGRAD becoming a stagnant operation for nearly two years.) A rational organization that follows internationally accepted

accounting and management procedures, which satisfy the needs of member countries and the international donors, should be developed and maintained.

Ways should be explored to obtain a committment from the country requesting an ACPO for counterparts with whom the ACPO can work and as soon as possible identification of a candidate from the national program for futher training and as a replacement for the ACPO.

Explore the possibility of a contract to provide the hiring and servicing of ACPOs in the SAFGRAD region. This avenue could improve administrative support and could more easily facilitate transfer of ACPOs with particular skills among countries. The hiring of regional nationals to work in a different country, either in an on-the-job training position, or as an ACPO, should be considered as a means of developing professional talent in the region.

An issue that must be addressed in SAFGRAD II is a clear identification of the target audience, project purpose and research objectives. Is the project purpose to increase food grain production or is it to help increase the production of low input small farmers? The two concepts are not necessarily synonymous. If the project is to increase food grain production, the emphasis might be placed on development of varieties and farming practices that require moderate or high levels of inputs, i.e., improved seeds, fertilizer, animal or mechanical tillage. Most researchers feel that there is little possibility of making a significant break through in increasing yields without some purchased inputs. Some countries in Africa are moving in the

direction of large commercial, mechanical operations (contract farming). The project should be clear as to which segment of the farm population it is to direct its efforts. Contracts with the researchers must define these terms. The contract should be monitored during implementation to see that research efforts are moving toward project objectives.

Much more research is needed on soil and water management. The greatest gains for the small farmer may come from changes in agronomic practices such as correct planting dates, plant populations, weeding, or through low-cost labor-saving equipment that will help him to maintain soil moisture and help make more effective use of low levels of fertilizer.

The role of the USAID project officer and project manager needs clarification. USAID tends to see these roles primarily as one of monitoring project funds to see that proper AID procedures are followed. The SAFGRAD International Coordinator prefers to have a professional colleague from USAID who can assist in planning, developing the extension linkages and assisting with workshops---a more professional agriculture position than visualized by AID.

The following sections are the suggestions from the different project components.

Research

1. Soil fertility, water management and crop production specialists should be available at each location where major SAFGRAD breeding programs occur.

2. Soil fertility, water management, crop production and pest control specialists should serve all SAFGRAD funded .pa activities at one location, even though two or more IARCs may be involved.

3. Sorghum research now at Samaru, Nigeria, should be moved to a location that is more typical of the rainfall pattern and farming systems of the targeted small farmers. Nigeria is moving more in the direction of large commercial farming to produce coarse grains. Corn production is moving into some of the drier areas, decreasing the importance of sorghum. If ICRISAT establishes a sorghum research program in West Africa, SAFGRAD funded research should be done at that location.

4. SAFGRAD should promote better cooperation between IITA and ICRISAT and other research partners in carrying out joint agronomic research in areas common to all crops (e.g., striga control, animal traction, soil and water conservation and farming systems research) to avoid wasteful duplication of efforts and to easily achieve the necessary critical mass for effective research.

5. The guidelines for the research program should be clearly stated by the CC. The contract or agreements issued under SAFGRAD II should adhere to these guidelines. The implementing agencies should then be required to fulfill the terms of the contract.



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6. Procure copies of the CDA survey reports to obtain a clear understanding of regional research program resources, duplications and shortfalls on commodities and disciplines of interest to SAFGRAD. If all of the needed information is not available from CDA surveys, then it should be obtained during SAFGRAD II project paper design.

7. Both AID and SAFGRAD should avoid duplication between their programs and those of other agencies. AID and other donors fund a number of regional programs that in varying degrees overlap SAFGRAD activities. Where duplication exists, efforts should be made to meet with concerned parties to work out differences. While some duplication may be unavoidable, SAFGRAD would then have enough information to make intelligent decisions for program direction.

8. Where serious gaps exist in regional research on the assigned crops, as exists for example in soil and water management and striga control research, SAFGRAD should attempt to develop regional research programs to fill this void.

9. Regional and international research should continue to be a function primarily of the IARCs, regardless of the donors involved. The CRSPs (INSORMIL for sorghum and millet and the soil management CRSP) are not structured to coordinate regional and international research programs and should not be encouraged to do so.

10. The final strength of research lies in the national programs---SAFGRAD generally and AID specifically should do all in their power to strengthen the national programs. The



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greatest progress in this area can be made by AID missions (and other donors) working in concert with regional programs to support national research efforts.

11. During the design phase of SAFGRAD II, the unique role SAFGRAD can play in coordinating research in the semi-arid areas of Africa should be clearly identified. With a solid base in OAU/STRC, SAFGRAD has the political respectability among member countries that transcends all donors. The OAU/STRC Coordination Office has professional credibility among regional researchers to perform a number of useful functions in identifying research needs, seek funding and focus attention on specific problems. Important ancillary services and support now lacking in the region, include:

    - Library services for researchers in the region.
    - Providing funds and logistical support for workshops.
    - Monitoring research programs.
    - Funds for recognized authorities in selected fields of endeavor to attend regional conferences.
    - Financing travel to national program staff members to other countries for important conferences, professional meetings and visits to successful, appropriate research programs.
    - Providing funds for staff and operational costs for regional researchers to study production constraints on the commodity crops.

Accelerated Crop Production Officers

1. Keep the existing flexibility in SAFGRAD to individually define the ACPO role, responsibilities, resource support and administrative lines in each country. Specify these points as part of the contractual agreement. Review these responsibilities every three years or sooner if needed to cycle with the expiration date of the ACPO contract. Such reviews should be completed at least one year prior to that date to allow time for contract negotiations and recruitment.

2. The most effective working relationships for ACPOs will likely be established by having a contractual agreement between OAU/STRC and the appropriate research and extension ministries with internal cooperative agreements among relevant units. In a new ACPO program, selection of a national counterpart to begin training should be a precondition to signing a contract.

3. The ACPO program supported by SAFGRAD should be viewed as catalytic and temporary. SAFGRAD should include definite plans for phasing out by transferring responsiblity and financial support to national organizations in each country. If continued financial assistance is needed after the full research-extension-farmer continuum is in place and institutionalized, consideration should be given to bilateral agreements with donors for support. Refer to Appendix E for recommended time frame.

4. Support the CC recommendation that expatriate ACPOs serve one three-year term, renewable once on an ad-hoc basis. It is easier for an expatriate from the donor country to deal with donor-related problems while simultaneously resisting in-country pressures to establish operative patterns contrary to SAFGRAD objectives.

5. Provide for professional development of ACPOs by funding visits to other ACPO programs, research centers in another country or meeting with senior professionals addressing a relevent problem. The ACPO should make a specific request with justification and provide local approval as part of the annual budget submitted to OAU.

6. Establish a one-year ACPO internship program for national counterparts returning from an experience as an expatriate or national counterpart in a country other than that of origin. This would allow the ACPO to gain confidence and mature in the position.

7. View existing ACPO program staff and those to be added in the future as an ACPO program staffing pool to be rotated to take advantage of partiular experise. Rotations could also be used to broaden the experience of ACPO program staff related to specific commodity problems successfully addressed in other countries.

8. The qualifications needed by the ACPO to succeed in each phase of the research-extension-farmer continium will differ. The same ACPO may not be equally well qualified to perform all. Establishing an ACPO program staffing pool could be extremely useful. Determining which phase of the

research-extension-farmer continuum is to be operationalized will be provided by the assessment performed by the OAU/STRC Coordinator.

9. Consider placing more than one ACPO position in a country's ACPO program and possibly more than one ACPO program where program needs warrent it. SAFGRAD should favor providing ACPO support needed for a country to be fully effective rather than opt for thinly supported ACPOs across many countries. A fully supported ACPO program might include new components such as:

   - Developing a full extension model program for a limited geographical area. Include staff and resources needed to be effective.
   - Providing SAFGRAD leverage funds to non-SAFGRAD salaried persons under a contractual agreement for providing SAFGRAD services.
   - Developing a SAFGRAD training program for each country to support the ACPO program. Under this arrangement training could be provided in internationl or regional centers for SAFGRAD cooperators, such as extension agents and lead farmers.
   - Developing a model in-country extension training center with a commitment for its utilization assured through contractual arrangements with organizations having extension agents.

Training Program

1. The inadequate supply of a trained cadre of African researchers will continue to militate against the rapid advancement of agricultural research in sub-Saharan Africa. Training support in expanding the pool of African scientists should be intensified under SAFGRAD II.
2. Selection criteria should be defined to assure selection of candidates who have adequate academic preparation, scholasitc ability, interest and work experience in areas of SAFGRAD identified needs.
3. Build in ways of utilizing the professional expertise developed through the long-term training program by obtaining a commitment from participants to work one year for SAFGRAD for each year of training or some such specified period of time.
4. OAU/STRC Coordination Office should keep files on both long and short-term trainees including their position placement at conclusion of training and conduct a two year follow-up.
5. Use short term training programs to screen for potential long-term training candidates. Take advantage of the larger number of junior level technical support positions in SAFGRAD to develop a pool of talent for career upgrading through short and long-term training.
6. Consider decentralizing short-term training. When numbers of trainees warrant it, conduct training in a specific country. Consider establishing regional training centers in

existing country facilities. The training program should be a collaborative effort with other regional and international institutions. This system could pool SAFGRAD and related expertise to extend availability throughout Africa.

7. Since bilingual ability is essential for effective communications across SAFGRAD countries, provide language training routinely during less active farming periods for technicians and professionals.

8. University training in the United States should include direct exposure to the Cooperative Extension system, preferably through both course work and short-term internship (i.e. summer work) for future researchers. If researchers know about extension, they will be in a better position to support working relationships in the SAFGRAD countries.

9. Long-term participant training should be available with extension as a major or minor, especially for future ACPOs---encourage internships as a part of program.

10. Both short and long-term participants should receive training in management as appropriate to the responsibilities they expect to assume. Preference for conducting this training should be given to African graduate schools of business having strong management programs.

11. Short-term participants should be recognized as trainers who will be expected to train others and should be guided in how to present information learned to others. Supportive educational materials and teaching aids as well as methodology should be routinely provided.

Farming Systems Research

1. A Farming Systems Research component is desirable in SAFGRAD II. It should emphasize regional training and networking activities and closer integration of FSR personnel with scientists of IITA and ICRISAT as well as those in national research institutes. FSR staff should operate out of the Kamboinse Station.

2. AID and the Government of Upper Volta should give serious consideration to continuting FSU research activities by locating them in the core of a national farming systems research program, with bilateral funding from AID.

   -- The timetable will be largely determined by GOUV decision-making regarding IVRAZ. We recommend, however, that preliminary steps to identify the appropriate niche in IVRAZ can be taken in the near future by the present FSU staff and AID;

   -- We defer the question as to whether the FSU should continue to be staffed and backstopped by Purdue to USAID/Upper Volta;

   -- The issue of project office location should be addressed and the criterion of maximizing opportunities for researcher interaction be applied.

3. FSU should provide internship and "associate opportunities" both short and long-term for staff associated with the IFAD/SAFGRAD effort, particularly if those hired have limited field experience in West Africa.

4. In developing any follow-on project SAFGRAD and AID should take into account the experiences of the FSU to date, particularly those regarding personnel, institutional linkages, techniques/methods, data management, and analytical time requirements.



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BIBLIOGRAPHY

Asnani, Dr. V. L. "IITA, It's Role in SAFGRAD", paper presented at the consultation meeting with national, regional and international organizations operating within CILSS,IITA/SAFGRAD, Upper Volta, December, 1980.

Asnani, Dr. V. L., "Second TAC Quinquennial Review of IITA - an Overview of IITA Programs in Upper Volta", Ouagadougou, Sept. 1983.

Banque Mondiale, "La Recherche Agronomique et Zootechnique, Upper Volta, Rapport de la Mission", Organisation des Nations Unies Pour L'Alimentation et L'Agriculture, Service International de la Recherche Agronomique Nationale, Mars 1983.

Brhane, Gebrekidan, "ICRISAT/SAFGRAD Eastern and Southern Africa Sorghum and Millet Improvement Program", prepared for SAFGRAD TAC meeting, January 1984.

"The Challenge of the Tropics", International Institute of Tropical Agriculture, Ibadan, 1977.

Christensen, Paul and Mike Kaylen, "FSU Microcomputer Data Management and Analysis System User's Instructions", SAFGRAD/FSU,Ouagadougou, August 1981.

Duell, Robert W., et al., "SAFGRAD Mid-Term Project Evaluation", Project 698-0393, USDA/OICD, July 1981.

Fall, Mankeur, "Rapport D'Activite 1983 - R.P.A.A. SAFGRAD Senegal", Centre National de Recherches Agronomiques de Bambey, Janvier, 1984.

Garvey, William, "SAFGRAD Training Program Accomplishments", USAID/AFR/RA, December 1983.

Gwathmey, C. O. and M. T. Fobasso, "Bilan de Realisation du Projet SAFGRAD au Cameroun, 1979-1983"' Rapport prepare a l'intention de la 3eme reunion du Comite Consultatif Technique (TAC) a Ouagadougou, du 9 au 11 Janvier, 1984.

IITA/SAFGRAD Annual Report, 1982, (including IDRC Upper-Volta Cowpea Project), Ouagadougou, June, 1982.

IITA/SAFGRAD, "Progress Report and Future Plans, paper presented at the Third Technical Advisory Committee, J. P. 31 SAFGRAD, Ouagadougou, January 9-11, 1984.

IITA/SAFGRAD, Rapport, 1979, (comprenant le project Niebe, CRDI, Haute Volta, Ouagadougou.

IITA/SAFGRAD, Rapport, 1980 (comprenant le projet Niebe, CRDI, Haute-Volta, Ouagadougou.

IITA/SAFGRAD, Rapport, 1981, (comprenant le projet Niebe, CRDI, Haute Volta, Ouagadougou.

IITA/SAFGRAD, "SAFGRAD and IDRC - Govt. Upper Volta - IITA Cowpea Breeding Project, Research Plans, 1981", Ouagadougou.

IITA/SAFGRAD, "SAFGRAD and IDRC - Upper Volta National Cowpea Improvement Project, Summary Report, 1981", Maize and Cowpea Unit, Ouagadougou.

IITA/SAFGRAD, "SAGFRAD and IDRC - Upper Volta National Cowpea Improvement Project, Program of Research, 1983 First Season" Ouagadougou.

IITA/SAFGRAD, "Semi-Arid Regional Maize Adaption Testing, Results and Reports, 1980", IITA Maize and Cowpea Research Team, Ouagadougou, May 1981.

IITA/SAFGRAD, "Semi-Arid Regional Cowpea Adaptation Testing, SARCVT, 1980", IITA/SAFGRAD Maize and Cowpea Research Team, Ouagadougou.

Institute for Agricultural Research, ."1983-84 Research Programmes with progress report on research projects undertaken in 1982-83", Ahmadu Bello University, Zaria, Nigeria.

International Crops Research Institute for the Semi-Arid Tropics, "ICRISAT Challenge and Response, 1972 to 1982", India, 1982.

International Crops Research Institute for the Semi-Arid Tropics. "ICRISAT Research Highlights, 1980".

International Institute of Tropical Agriculture, "IITA Research Highlights, 1981" Ibadan 1981.

International Institute of Tropical Agriculture,"IITA Research Highlights, 1982", Ibadan, 1983.

International Institute of Tropical Agriculture, "Maize and Cowpea Improvement in Semi-Arid Africa", Ibadan, 1983.

Johnson, Jerry J., "SAFGRAD Project in Mali, September 1978 to September 1982, Final Report by the Accelerated Crop Production Officer", USAID COntract REDSO 77-111 of 6/9/77.

Korteweg, C. I., Final Report, ACPO SAFGRAD Project (Upper Volta), 1978-1982", SAFRAD, Ouagadougou.

Korteweg, C. I. and Moussa Kamore, " SAFGRAD, ACPO Upper Volta, Report 1981", Ouagadougou.

Muleba, Nyanguila, "Cowpea-Agronomist, Annual Report, 1982"' SAFGRAD/IITA, Ouagadougou.

Ohm, H. W. and M. Lang, "Report for SAFGRAD TAC Meeting 9-11 January, 1984", FSU/SAFGRAD, Ouagadougou.

OUA/CSTR/SAFGRAD, "Activites du RPAA-SAGRAD/MALI", presente au Troisieme Reunion du Comite Consultatif Technique du PC 31 Ouagadougou 9-11 Janvier 1984.

Perrier, Dr. Eugene R., "The Soil-Water Management Problem of Upper Volta, ICRISAT/SAFGRAD, Ouagadougou (Technical Paper for TAC).

"Questionnaires Utilises Pour les Etudes les Systemes de Production Agricoles Dans des villages Echantillons de Haute Volta", Unite de Recherches des Systemes de Production (SAFGRAD), Universite du Purdue, Ouadagougou, January 1980.

Rao, N. G. P., "Soughum Breeding Research Report, 1982-83", ICRISAT/SAFGRAD, Samaru, Nigeria.

Ramaiah, K. V., "Striga Program in Africa", ICRISAT/Upper Volta Cooperative Program, Kamboinse, paper presented at the Second SAFGRAD Sorghum and Millet Workshop, Gaberone, March 16-19, 1981.

"Rapport D'Activites du Responsable de la Production Agricole Acceleree de Haute-Volta", presente au Comite Consultatif Technique (CCT) du 9 au 11 Janvier 1984, Ouagadougou.

"Rapport de la Campagne, 1981", Projet SAFGRAD Au Mali, Bamako.

"Rapport de la Campagne, 1982", Projet SAFGRAD Au Mali, Bamako.

"Report of the OAU/STRC JP 31 SAFGRAD Panel Discussion on Maize and Cowpea", SAFGRAD, Ouagadougou, March 1-2, 1982.

Rodriquez, Dr. Mario, "Maize Agronomy Annual Report, 1982", IITA/SAFGRAD Ouagadougou.

Rodriquez, Dr. Mario, "Regional Maize Agronomy Trials", IITA/SAFGRAD, 1982 Preliminary Report, Ouagadougou.

SAFGRAD, "SAFGRAD, Farming Systems Unit, 1982 Annual Report", May 1983.

SAFGRAD, "SAFGRAD First OAU/STRC Workshop on Sorghum and Millet, Report and Recommendations", Mombasa, Kenya, Februrary 26 - March 1, 1980.

SAFGRAD, "Scientific Documents Presented at the Second Workshop on Sorghum and Millet", Gaberone, Botswana, March 16-20, 1981, SAFGRAD, Ouagadougou.

SAFGRAD, "The Second Consultative Committee Meeting on Semi-Arid Food Grain Research and Development Project, JP 31 SAFGRAD, November 7-8, 1983", (Proceedings), Ouagadougou.

SAFGRAD Coordination Office," Background, Discussion Papers and Agenda for Second Consultative Committee Meeting on November 7-8, 1983," Ouagadougou.

SAFGRAD/OUA/CSTR, "Synthese du Rapport D'Activites, Campagne (Togo), 1983", Janvier 1984.

Shetty, S.V. R., "ICRISAT/SAFGRAD JP 31 Programme at Nigeria, 1980-83 (draft)", Samaru, undated.

Singh, Ram D., "Major Cropping Patterns - SAFGRAD Countries, Upper Volta Facts and Observations Relevant to Farming Systems Research", SAFGRAD/FSU Document No. 7, undated.

Singh, S. R. and D. J. Allen, "Cowpea Insects and Diseases", Manual Series No. 2, IITA, Ibadan, 1979.

Singh, S. R., Singh, B. B., et. al., "Cowpea Research at IITA", Information Series, No. 14, Ibadan, 1983.

Swanson, Richard A., "Household Consumption, Rainfall, and Household Labor Time Allocation for Planting and Weeding: Some Observations and Recommendations", Farming Systmes Unit/SAFGRAD, Ouagadougou, January 1981.

Systhesis Report, 1981, OAU/STRC JP 31 SAFGRAD, Ouagadougou.

Universite du Purdue,"Programme des Essais au Champ du FSU/SAFGRAD, Campagne 1983", Ouagadougou.

Universite du Purdue, "Recherche Sur Les Systemes de Production Agricole, Rapport du Programme, 1982 (Provisoire)", SAFGRAD.

Ziet, Nazreth and Debre Ziet, "Sorghum Improvement in Eastern Africa", Proceedings of the Regional Workshop on Sorghum Improvement in Eastern Africa, Ethiopia, October 17-21, 1982.

Appendix A

Information Appendix for

AFR/W Executive Level Personnel

Prepared by: Donald R. Mitchell, Agricultural Consultant

Date: June 8, 1984

Project: Semi-Arid Food Grains Research and Development (SAFGRAD)

Country: Regional - 25 countries in semi-arid Africa

Cost: $19,160,000 grant over 8 years

I. What constraints did this project attempt to relieve?

This project was designed to help the farmers in the semi-arid areas of Africa to increase the production of their major food grain crops---sorghum, millet, maize, cowpeas and groundnuts. Low yields in these crops are caused by a number of factors, including weather extremes, soils incapable of retaining moisture, insufficient labor, inability of farmers to pay for substantial production inputs.

II. What technology did this project promote to relieve these constraints?

The major thrust of this project is to develop the technology needed to over come many of these constraints. While it is too soon for much specific technology to have

been developed from project activities, the project attempted to reduce these production constraints on several levels. Research was conducted by IITA for maize and cowpeas and by ICRISAT for sorghum and millet, primarily to identify superior varieties that are resistant to predominant pests and diseases and will provide increase in production over that of local varieties under variable low rainfall conditions experienced by farmers. In addition, various agronomic practices were tested to develop practices that would help retain soil moisture and modify the effects of pests and diseases. Farming systems research was undertaken with farmers to identify and better understand the constraints the farmers face. Accelerated Crop Production Officers (ACPOs) were stationed in five countries to develop the institutional linkages between research, extension and farmers.

III. What technology did this project attempt to replace?

Through this project, attempts are being made to replace traditional varieties with higher yielding varieties under low input conditions of farmers. It is very difficult for the farmer to achieve higher production without additional inputs, principally, labor or fertilizer. For example, tied ridges is an old practice used to provide micro-catchment basin to collect rain. It has been shown in research that tied ridges when used with high yielding



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varieties and fertilizer will profitably increase yields. The addition of mulch will provide an additional increase. Farmers generally do not use these practices because it requires more labor to build the tied ridges, they do not have the capital to buy fertilizer that is unavailable or eraditically available and the mulching materials available are usually fed to the livestock. Researchers are attempting to solve these problems.

IV. Why did project planners believe that intended beneficiaries would adopt the proposed technology?

The semi-arid countries of Africa face a chronic food shortage. It was believed that the research conducted through this project would result in yield increasing technology to alleviate this problem. It was also assumed that the governments of the 25 member countries would pursue food grain price policies that encourage increased production. This has not been the case. Many of the governments are politically unstable with frequent changes in policy direction. Most are faced with chronic foreign exchange shortages making the purchase of fertilizer and other agricultural supplies difficult. Further, the US and other countries are providing food aid to relieve the starvation prevelant in many of these countries. While this is a humanatarian thing to do, it enables the governments to pursue a cheap food grain policy that is counterproductive in terms of encouraging farmers to increase local production.



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V. What characteristics did the intended beneficiaries exhibit that had relevance to their adopting the proposed technology?

In general farmers in the member countries are eager for low cost technology that will increase production, particularly if this increase results from the same or less labor input. Food shortages common in the area should assure a market for the increased production.

VI. What adoption rate has this project achieved in transferring the proposed technology?

It is much too early to tell. To date the development of technology is still at the research stage, including the on-farm trials. The development of packages of technology is yet to be done, although pieces of the package are beginning to emerge.

VII. Has the project set forces into motion that will induce further exploration of the constraints and improvements to the technical package proposed to overcome it?

Yes. The establishment of the OAU/STRC Coordination Office is now operational and can be an important factor in coordinating the research of many international research groups and national research programs working on problems common to member countries. Through this mechanism, professional exchanges dealing with specific commodities or research problems are taking place. The



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active participation of IITA and ICRISAT assure some of the best researchers are working on the problems of the semi-arid African farmers.

VIII. Do private input supplier have an incentive to examine the constraints addressed by the project and to come up with solutions?

This varies from country to country, but in general most governments in member countries import and distribute fertilizer and other agricultural chemicals. The amounts are small and the governments attempt to control the prices. As demand for the inputs increase it is very likely that channels for private suppliers will open.

IX. What delivery system did the project employ to transfer technology to intended beneficiaries?

The position of an ACPO was established in five member countries employing different modes of operation. Some of the ACPOs have been expatriates while others are host country nationals. Their major role is to provide a bridge between the researchers, extension workers and the farmers. The role of the ACPO was seen as a temporary position to help the host government see the need and work out administrative arrangements for establishing this linkage. The project did not plan to fund ACPO positions in all member countries, but rather that the OAU/STRC Coordination Office would influence other donors or member countries to provide funds. French aid, for example is



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funding the ACPO in Togo. Additional governments are asking for ACPOs in their countries.

X. What training techniques did the project use to develop the delivery system?

The ACPO largely provides on the job training for the agricultural workers in the country where he is stationed. On-farm trials to date have been mostly for research purposes rather than as result demonstrations to teach farmers. Farmers, of course, learn from these trials, but it is not true extension. A ACPO network is seen as an effective way of exchanging ideas between ACPOs in member countries, but this has not been implemented. Extension can only happen after proven technology has been developed and it is too early for this to have happened in this project.

APPENDIX B

## SCOPES OF WORK
## SAFGRAD EVALUATION

### Team Leader

The SAFGRAD Project is a regional agricultural research project comprised of several activities being implemented in several locations. The evaluation must address administrative arrangements in terms of the coordination function as performed by OAU/STRC and the technical/scientific aspects as carried out by the various research entities. The final evaluation report must be a comprehensive document which will assist USAID, OAU/STRC and other project cooperators in addressing policy issues and in designing more appropriate interventions for a SAFGRAD Phase II. The Team Leader's primary function will be to insure that the evaluation is completed in a timely manner while providing effective management and program guidance to all project entities. To this end, the Team Leader will carry out the following scope of work:

1. Provide guidance and direction to evaluation team members in accordance with AID evaluation methodology and procedures as outlined in AID Handbook 3, Chapter 12.

2. Assist the Management/Organization Specialist in an evaluation of the overall concept and the coordination function as implememted by OAU/STRC.

3. Related to 2 above, determine the degree that participating SAFGRAD countries' national research programs are integrated with the regional research supported by the project.

4. Manage the compilation of the evaluation final report. He/she will be the principal editor and will insure the evaluation report is a cohesive document and is submitted in a timely manner.

5. Related to 4 above, provide for all logistical support to the evaluation team. This will include hiring secretaries and administrative assistants, renting vehicles, etc. USAID/UV will provide support in this effort.

**Agricultural Economist**

Seventy to eighty per cent of the population of the SAFGRAD countries are engaged in rainfed agriculture. The majority of these farmers depend almost entirely on cereal production for their livelihood. Millet, sorghum and maize production account for approximately eighty per cent of all cereals produced in the semi-arid regions of the participating SAFGRAD countries. In terms of economic returns to USAID's investment in SAFGRAD, and to this end the Agricultural Economist participating on the SAFGRAD evaluation will carry out the following scope of work:

1. Review the research activities implemented by the SAFGRAD supported entities and identify technologies (varieties and cultural practices) being promoted by the project which have potential for widespread adoption amongst farmers of the participating countries.

2. Based on one above, estimate the economic impact, both direct and indirect of the improved technologies on semi-arid small farm agricultural production, and determine the most cost-effective resource allocation amongst different research activities (breeding, agronomy, entomology, farming systems research) supported by the project.

3. Evaluate the cost-effectiveness of SAFGRAD as a research coordinating mechanism relative to the establishment of other regional research institutions such as Institute du Sahel and the SADCC effort and to the improvements in national research programs since the inception of the SAFGRAD project.

4. Given that prices and other economic policy relatives affect the rate of adoption and appropriateness of new technologies, identify ways by which other International Research Organizations such as the International Food Policy Research Institute can contribute to the development of the SAFGRAD research agenda and improve its effectiveness as a research coordinating body.

5. Based on 1 and 4 above, make recommendations which should receive emphasis and be considered in any phase II SAFGRAD efforts.

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**Farming Systems Research Specialist**

The SAFGRAD Project has supported the Farming Systems Unit (FSU) with the purpose of obtaining more aoro-ecological specific information regarding small farm conditions in participating SAFGRAD countries. Introducing Farming Systems Research (FSR) provides a vital feedback link in terms of constraint identification and farm level resource allocation decision from the small farmer to the research scientists conducting basic varietal and agronomic research. This process is considered vital to a more accurate appraisal of research needs and more effective dissemination of promising technologies. The Farming Systems Research Specialist on the SAFGRAD evalaution team will carry out the fololowing scope of work to assess the FSU component of the SAFGRAD Project:

1. Assess the Farming Systems Research (FSR) methodology which has been developed by the Purdue University technical assistance team in terms of:

   a. Its appropriateness relative to other models developed for use in the Sahel and other parts of Africa, i.e. the ICRISAT Economic Program, ORSTROM, and IRAT; included should be a cost-effectiveness analysis of the socio-economic data collection activities in relation to other methodologies.

   b. Its contribution to increased knowledge of small farm conditions, production constraints, and farm management strategies; and

   c. Its potential as a means of facilitating the transfer of information concerning small farm conditions and farmer atitudes toward improved technologies to appropriate research institutions.

2. Determine the feasibility of using the FSU model to implement a FSR project on a bilateral basis with the GOUV.

3. Determine the degree of integration and collaboration the FSU activities have with other SAFGRAD research cooperators (IITA, ICRISAT) in terms of selecting technologies to be tested/evaluated and form formulating the SAFGRAD research agenda.

4. Recommend appropriate FSR interventions for the remainder of ther SAFGRAD Project and for any phase II efforts. To this end, provide an assessment of the proposed IFAD support to the development of additional FSUs in other SAFGRAD countries.



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**Organization/Management Specialist**

The SAFGRAD organization provides for the semi-arid zones of Africa an institutional structure which promotes the coordination of cereals and grain legumes research and training of participating countries' research scientists. The actual SAFGRAD research and training is conducted by numerous research entities which can be grouped into three categories: participating African states' national research institutes, International Agricultural Research Centers (IARCs) and other agricultural research organizations with programs in semi-arid zones. The SAFGRAD organization is comprised of three coordinating bodies; the Consultative Commmittee (CC) which provides policy guidance and program monitoring, the Technical Advisory Committee (TAC) which recommends the research and training agenda, and the Coordination Office which implements the SAFGARD research program as directed by the CC and TAC. The administrative systems and inter-institutional agreements employed in the SAFGRAD organization are provided by the Organization of African Unity Scientific, Technical and Research Commission (OAU/STRC). Membership on the CC and TAC is made up of respresentatives of all the participating entities; OAU/STRC, is complex with a myriad of activities being implemented to achieve different sub-objectives of the project. Given this organizational complexity the Organization/Management Specialist will provide an analysis of the coordination function and carry out the following scope of work:

1, Provide an analysis of the SAFGRAD organization in terms of:

   a. The administrative structure and management systems of the OAU/STRC coordination offices in Lagos, Nigeria and Ouagadougou, Upper Volta and its capacities to perform the research coordination function required by the project;

   b. Related to a. above, the relationships between the OAU/STRC Coordination Office and other project cooperators, including USAID, in terms of efficiency and effectiveness in coordinating research and project implementation and management;

   c. The OAU/STRC financial accounting system.

2. Based on 1.a, .b and .c make recommendations for improvements as required.

3. In collaboration with the Senior Research Scientist and Team Lerader, and based on 1.a, .b and .c above, assess

the continued appropriateness of the SAFGRAD organization as an institutional coordinating mechanism for research, training and technology transfer.

4. In collaboration with the Senior Research Scientist, review the functions of the CC and TAC in terms of developing and implementing the SAFGRAD research agenda.

**Research Agronomist**

The SAFGRAD Project purpose is to develop improved cereal varieties (millet, sorghum and maize) and grain legumes (cowpeas, groundnuts) and improved cultural practices which address production constraints of small farmer semi-arid agriculture. The development of improved technologies is crucial to any efforts at increasing agricultural prodction and small farmer productivity. The research undertaken by the project is supported at the regional and national levels. The regional research is conducted at the Kamboinse Research Station in Upper Volta, Samaru Station in Nigeria and Nairobi, Kenya. SAFGRAD regional research is supported at the national level through programs of field/on-farm trials and other types of outreach extension programs aimed at further testing, developing and extending improved technologies. The International Institute for Tropical Agriculture (IITA) has primary responsiblity for conducting research on maize and grain legumes and the International Crop Research Institute for the Semi-Arid Tropics (ICRISAT) concentrates on millet, sorghum and production agronomy research. As the SAFGRAD Project's major emphasis has been to support basic varietal and agronomic research, the reseaarch agronomist will address the technical issues of the research conducted by the SAFGRAD Project by carrying out the following scope of work:

1. Review the research activities implemented by the SAFGRAD supported entities and evaluate the varietal and agronomioc improvement programs of IITA and ICRISAT in terms of their scientific quality and appropriateness given the production constraints (low rainfall, low and deteriorating soil fertility) of semi-arid conditions.

2. Based on 1 above, recommend priority areas and most effective resource allocations in terms of research (varietal vs agronomic; on station vs off-station, expanded FSR, more emphasis on local varieties vs development of new varieties) which should be addressed during the remaining life of the current project and a phase II effort.

3. Assess the SAFGRAD concept of regionally supported research from a technical point of view in terms of efficiency and effectiveness in coordinating research to determine its relevance to national programs and agro-ecological specific needs and make recommendations for more effective structure and linkages.

4. Review the various scientific conferences supported by SAFGRAD to determine their effectiveness at information dessimination among research scientists and to what extent they promote increased collaboration in addressing research needs and make recommendations for future support of these activities.

**Training/Extension Specialist**

The SAFGRAD Project supports training at several levels: farmer, non-degree and degree training. Each contractor under SAFGRAD (IITA, ICRISAT and Purdue) has training programs which attempt to develop the host countries' capacities for implementing research programs. Additionally, the project has sent 26 candidates for long term training in various agricultural sciences. Overall, the SAFGRAD Project has devoted much effort and resources to training programs. The Training/Extension Specialist participating on the evaluation team will carry out the following scope of work to address issues of the training activities:

1. Review the SAFGRAD supported long-term training in terms of:

   a. The geographic distribution of participants;

   b. Academic performance of participants;

   c. Areas of emphasis, i.e. disciplines studied;

   d. The selection process and criteria for selection; and make recommendations which will improve the long-term training program.

2. Review the short-term training programs as implemented by the individual contract teams in terms of the relevance and effectiveness of the programs in developing intermediate level technicians to carry out the various research programs and make recommendations for improving the programs.

The principal mechanism of linking research to the farmer and extension service under the SAFGRAD program involves the use of an Accelerated Crop Production Officer (ACPO). Presently the SAFGRAD Project has 5 ACPOs working in Senegal, Upper Volta,

Mali, Cameroon and Togo. ACPOs are assigned to national research programs to carry out a program of field/on-farm testing and demonstration of research results. The Training/Extension Specialist participating on the evalaution team will carry out the following scope of work to determine the effectiveness of the ACPO program:

1. Review the ACPO programs in Cameroon, Senegal, Mali and Upper Volta to determine the effectiveness by which SAFGRAD regionally supported research is being further tested at the farm level. To this end, assess the linkages between ACPOs and SAFGRAD research entities and the OAU/STRC coordinating office.

2. Based on 1 above, assess the degree of extension service and farmer collaboration in implementing the off-station research trials, i.e., to what degree is a FSR perspective incorporated in their programs.

3. Evaluate the degree of integration of the ACPO programs with national research programs (this will include to a certain degree an assessment of the relevance of SAFGRAD supported research to national programs) and recommend alternative mechanisms for ACPO support, i.e. if ACPOs provide a vital link in the research process, is it not in the interest of national programs to assume their support to expand their capacities to perform this research-extension-farmer liaison function?

**Senior Research Scientist**

The SAFGRAD Project provides for the semi-arid zones of Africa an institutional structure which promotes the coordination of cereals and grain legume research and training of participating countries' research scientists. The actual SAFGRAD research and training is conducted by various research entities which can be grouped into three categories: participating African states' national research institutes, International Agricultural Research Centers (IARCs), and other agricultural research organizations with programs in the semi-arid zones. The SAFGRAD organization is comprised of three coordinating bodies; the Consultative Committee (CC) which provides policy guidance and program monitoring, the Technical Advisory Committee (TAC) which recommends the research and training agenda, and the Coordination Office which implements the SAFGRAD research program as directed by the CC and TAC. The administrative arrangements and inter-institutional agreements employed in the SAFGRAD organization are provided by the Organization of African Unity Scientific, Technical and Research Commission (OAU/STRC). Membership in the CC and TAC is made up of representatives of all participating

entities; OAU/STRC, member states, IARCs and the donor community. Since the inception of the project, IARCs have expanded their programs in Africa, national research programs have grown and other regional research institutes have been created. As a result, scope of the SAFGRAD network will need to be redefined relative to the institutional development of these other research entities. To this end, the Senior Research Scientist participating on the evaluation team will aid in clarifying the role of the SAFGRAD organization and will carry out the following scope of work:

1. In collaboration with the Organization/Management Specialist and Team Leader, assess the continued appropriateness of the SAFGRAD organization as an institutional coordinating mechanism for research, training and technology transfer for cereals and grain legumes in the semi-arid zone of Africa.

2. Based on 1 above, if the coordination fuction is required, recommend a more efficient or effective alternative.

3. Assess the degree of integration of the research supported by SAFGRAD at the national, regional and international levels and make recommendations as to how this could be enhanced and facilitated.

4. Recommend how IARCs can play a larger role not only in carrying out research, but also in coordinating research with national and regional programs.

5. Related to 4 above, delineate the most appropriate type of relationship between the IARCs and USAID i.e. grant or contractual; in terms of accommodating the research required by the project.

6. Assess the potential for other regional research institutions and programs such as INSORMIL and INSAH to assume more responsibilities for SAFGRAD supported activities.

7. In collaboration with the Management/Organization Specialist, review the functions of the CC and TAC in terms of developing and implementing the SAFGRAD research agenda, and recommend how these committees can be more effective.

APPENDIX C

UNCLASSIFIED
CLASSIFICATION

# PROJECT EVALUATION SUMMARY (PES) — PART I

Report Symbol U-447

| 1. PROJECT TITLE | 2. PROJECT NUMBER | 3. MISSION/AID/W OFFICE |
|---|---|---|
| Semi-Arid Food Grain Research and Development (SAFGRAD) | 698-0393 | USAID/Upper Volta |

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) 686-83-01

☐ REGULAR EVALUATION ☒ SPECIAL EVALUATION

| 5. KEY PROJECT IMPLEMENTATION DATES | | | 6. ESTIMATED PROJECT FUNDING | 7. PERIOD COVERED BY EVALUATION |
|---|---|---|---|---|
| A. First PRO-AG or Equivalent FY 77 | B. Final Obligation Expected FY 83 | C. Final Input Delivery FY 84 | A. Total $ 21,300,000<br>B. U.S. $ 16,475,000 | From (month/yr.) 5/77<br>To (month/yr.) 6/81<br>Date of Evaluation Review 3/83 |

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

| A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.) | B. NAME OF OFFICER RESPONSIBLE FOR ACTION | C. DATE ACTION TO BE COMPLETED |
|---|---|---|
| (Note: This PES has been prepared based on a July 1981 external evaluation and on AID IG audit (report 7-698-83-1 of November 1982). The actions identified below represent a melange of outstanding items from the evaluation, the audit, and other observations of the USAID/Upper Volta staff. It is also important to note that, while the evaluation reviewed all aspects of the SAFGRAD activity, the IG audit limited itself to the management and financial operations of the SAFGRAD coordination office in Ouagadougou.) | | |
| A. | B | C |
| 1. The Evaluation, the audit and recent meetings between the OAU principals (OAU/USAID/ICARS) all called for an expanded role of the OAU/STRC in implementing SAFGRAD. Such an expanded role requires: | | |
| A. approval of an expanded FY83 budget for both the Ouagadougou and Lagos operations; | Becker/Hughes | 4/15/83 |
| B. approval of an expanded FY 84 budget for both the OAU Ouagadougou and Lagos operations; and | Becker/Hughes | 7/1/83 |
| C. transmittal of USAID guidance on host country procurement of goods and services. | Becker/Hughes | 4/15/83 |
| 2. The Audit highlighted the importance for USAID to clarify implementation monitoring responsibilities between the field and Washington and transmit such clarification to OAU/STRC. | Naylor (AFR/RA) | 5/1/83 |

(continued on next page)

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- ☐ Project Paper
- ☐ Financial Plan
- ☐ Logical Framework
- ☒ Project Agreement
- ☒ Implementation Plan e.g., CPI Network
- ☒ PIO/T
- ☐ PIO/C
- ☐ PIO/P
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

- A. ☐ Continue Project Without Change
- B. ☐ Change Project Design and/or ☒ Change Implementation Plan
- C. ☐ Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

July 1981 evaluation team:
Herbert S. Hughes  Leopold Fakambi
John D. Hyslop  Robert W. Duell, Team Leader
Elon Gilbert  USAID/UV evaluation Officer: Michael Rugh

12. Mission/AID/W Office Director Approval

Signature: Laurence C Wilson

Typed Name: Emerson J. Melaven

Date: April 21, 1983

AID 1330-15 (3-78)

Project emphasis has been on regional-level research with little effort given to the oversight of that work in terms of relevance to SAFGRAD's target group: the small farmers of sub-saharan Africa.

The July 1981 evaluation made 14 recommendations to improve project implementation. As of March 1983, the status of these recommendations is as follows:

Recommendation 1: SAFGRAD policy and guidance functions should be strengthened by revitalizing the Consultative Committee (CC) and Technical Advisory Committee (TAC) and institutionalizing their roles within the project.

Status: This has not happened, and was subject of recent audit recommendation. AID-OAU meetings of February-March 1983 have resulted in a first cut at revised management protocols for SAFGRAD. However, simply "revitalizing" the CC and TAC may not be the best route to strengthened management. The roles of both will become clearer when they convene in May 1983.

Recommendation 2: Greater relative emphasis should be placed on coordination of national with regional-level research efforts and relatively less emphasis placed on direct research at the regional level.

Status: There has been a small improvement. The present project manager, who was part of the evaluation team, believes it was a weakness of the evaluation in attempting to make policy-shift decisions in mid-stream. Such a shift is difficult to carry out quickly. Purdue has made an effort to refocus and expand from national to regional emphasis in its activities. It is unrealistic to expect a major shift within the present project; Phase II design should address this point.

Recommendation 3: Attention should be given to the permanence of SAFGRAD, i.e. institution-building.

Status: Until the evaluation, the permanence of SAFGRAD was of secondary concern. The USAID emphasis was, rather, on mobilizing research and transferring the information expeditously to the member states. The evaluation pointed out that this would necessarily be a long-term process involving greater participation of African institutions. As a result, OAU/STRC initiated two major actions. First, they reviewed their own support of the coordinator office and subsequently have expanded their Lagos backstop for the project. Second, the OAU/STRC has taken a leadership role in SAFGRAD and is bringing the office into line with other OAU/STRC institutions throughout Africa by introducing full OAU management procedures.

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Recommendation 4: OAU should be more active in pursuing donor support for SAFGRAD.

Status: As a result of the evaluation, AID/Washington advised OAU/STRC that the long-term viability of SAFGRAD was contingent on other donor participation. As a result, the new Executive Director of OAU/STRC, Prof. A.O. Williams, launched a campaign for SAFGRAD support from several international donor agencies including: the European Development Fund, the International Fund for Agricultural Development (IFAD), and the French FAC. In addition, he also pursued greater participation by the Institut de Recherches Agronomiques Tropicales.

Recommendation 5: Consideration should be given to empowering OAU/STRC as the contracting body for technical assistance activities.

Status: The USDA project manager believes this recommendation was ill-advised. Recent audit findings would superficially tend to support this position and no doubt an expanded role for OAU/STRC should await the arrival of a new management team in the coordinator's office. Nevertheless, if efficient SAFGRAD operations and management are to be based on several different donors, then it is appropriate that a uniform system of contracting be introduced (an OAU/STRC system).

Recommendation 6: The autonomy of the OAU/STRC Coordinator in Ouagadougou with respect to OAU/STRC headquarters in Lagos should be maintained in the making and implementation of operational decisions.

Status: This runs contrary to 1982 audit dindings. Recent events support a view that OAU should set up a system whereby headquarters has more input and operational control and it is in this direction that the project will head.

Recommendation 7: The operations of the Ouagadougou office should be strengthened by adding: (1) a Coordinator of Research responsible for the management of all technical research matters; and (2) one or two persons to the staff of the OAU/STRC Coordinator so that fiscal matters can be professionally handled.

Status: The OAU/STRC simultaneously began the search for a Director of Research as well as support for such a position soon after the evaluation was completed. Based on the expression of interest of IFAD in this area, the OAU/STRC, with the help of other participating SAFGRAD supporters, selected a Director of Research in March, 1983. To improve the management of fiscal matters, an accountant was hired with AID funds in March, 1982. Since then, the OAU/STRC as a result of audit findings have begun to introduce their own accounting systems as well as financial management and control procedures.

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Recommendation 8: OAU/STRC, with AID support, should negotiate with the other donors and implementing agencies they fund to bring them more closely into the SAFGRAD fold and achieve greater SAFGRAD influence over their research activities.

Status: The OAU/STRC began discussions with the ICARs on this matter upon the arrival of Prof. A.O. Williams. However, the greatest progess to date took place in Brussels (March, 1983) where the role of the CC and TAC were discussed. All participants agreed more coordination of SAFGRAD research activities was required and the OAU/STRC through its expanded Coordinator office would take the lead.

Recommendation 9: AID and OAU/STRC should consider placing the regional research centers under full SAFGRAD management to avoid questions of national sensitivity.

Status:No action taken and none envisioned. It is believed the evaluation team was not in agreement over the inclusion of this recommendation. We believe placing regional research centers under full SAFGRAD management would be counter-productive to those research efforts and would certainly offend the governments of the countries in which they are located.

Recommendation 10: Greater regional-level emphasis should be placed on soil and water research. Breeding work should be aimed at varieties adapted to farmers' current management and levels of output.

Status: Some progress has been made. ACPOs are placing more emphasis on agronomy. To the extent the opportunity has arisen to change personnel and policy, the movement has been towards emphasizing soil and water research. Lack of a TAC hindered making progress towards meeting both points in this recommendation.

Recommendation 11: The FSU team should concentrate on the adaptive farm trials component of its program for the remaining life of the current SAFGRAD project.

Status: The FSU team has fully complied with this recommendation and intensified its efforts on adaptive farm trials. Their current research directions will greatly enhance their final product.

Recommendation 12: (Concerns follow-on Phase II project and relates to design team and FSU when Phase II is implemented).

Recommendation 13: The ACPO role as liaison between national research and national extension should be his only mission. The permanent research staff of the national centers should take over responsibility for regional trials.

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Status: Recommendation has been partially fulfilled. ACPO contracts now emphasize their role as liaison and suggests they facilitate national research trials to be done by the nationals of the country in which ACPO is located.

Recommendation 14: ACPOs should be assigned to national farming systems programs in order to provide "leverage" to the farming systems' extension activities beyond the immediate areas in which they are working.

Status: Partially implemented. The Upper Volta ACPO has been urged to work with the FSU as there is not a national system's extension group. Also, the new Benin ACPO position is fully integrated with the national farming systems research effort.

14. Evaluation Methodology

The purpose of the evaluation was to determine: (a) the effectiveness of the funded research coordination, extension and training efforts; (b) the degree of adherence to the project plan and objectives; (c) to recommend revision of the project documents, if necessary; and (d) project and recommend a U.S.-supported follow-on project. Field work for the evaluation began in Ouagadougou in May 1981 by the five-member team, and encompassed visits to the primary sites of SAFGRAD regional activities in Senegal, Mali, Nigeria and Upper Volta.

Discussions were held with representatives of international and national research and extension organizations, expatriate researchers, and farmers in villages at points throughout selected participating SAFGRAD countries. The evaluation concentrated more on process than on products and outputs due to the fact that, at the time of the evaluation, the project was only half way through its projected five-year life.

15. External Factors

Not pertinent at this time.

16. Inputs

AID-funded staffing for the project, with exception of the ICRISAT team at Samaru,Nigeria, was realized in a relatively timely manner. Construction at Kamboinse, Upper Volta, and procurement of project vehicles also was realized without a detrimental delay to project implementation. Long-term training start-up experienced selection/placement delay due to varying selection procedures in participating countries, and coordination through the OAU/STRC mechanisms. The evaluation did not find any major problems directly related to input delivery.

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17. Outputs

The SAFGRAD project log frame cites seven major outputs:

Output 1: Regional Crop Research (varietal improvement/soils management).

The evaluation found SAFGRAD's major emphasis has been on varietal development research at the regional level, with most progress being on maize development by IITA at Kamboinse. AID-funded work on sorghum by ICRISAT at Samaru, Nigeria, was delayed due to initial contractor staffing problems and the lack of an agreement with Nigeria. The evaluation recommended greater regional emphasis be placed on soil and water research, and breeding work be aimed at varieties adapted to farmers' current management and levels of input.

Output 2: Regional farming systems research.

The Farming Systems Unit (FSU), implemented through a contract with Purdue University, was intended to give SAFGRAD a capability for basing its research and development activities on an understanding of the farmers' decision-making environment.

The FSU team concentrated its efforts on village-level studies in Upper Volta, almost exclusively. Its work plan called for detailed socio-economic surveys in the villages to provide data for models of production-consumption behavior. Management problems in data gathering and a lack of computer for tabulating and analyzing the data resulted in a failure to complete the planned formal analysis.

Partial analysis of the data and experience in working with villagers permitted the team to begin an on-farm agronomic trials program. The evaluation recommended the FSU team concentrate on the adaptive farm trials component of its program for the remainder of the SAFGRAD project, and that it should have a regional, rather than national, orientation (see 13 for further clarification).

Output 3: National field trials/demonstration activities.

This element of the project is the responsibility of the ACPOs (Accelerated Crop Production Officers) serving as a link between the crop researchers and the FSU team on one hand, and farmers and national extension units on the other. The role of each of the four ACPOs in place at the time of the evaluation has been based on an accomodation between that delineated in the PP and the constraints and opportunities presented by the institutions and resources in each SAFGRAD country.

Two ACPO issues cited in the evaluation are:(1) SAFGRAD regional versus national responsibilities; and (2) integration of the ACPOs' national work into a farming systems research program. The evaluation recommended the ACPOs' SAFGRAD regional field trial responsibilities be given to the national research program. At the ACPO level of the SAFGRAD project, the role in strengthening linkages is paramount in furthering the objectives of increased production of farmers. His time and material resources which

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are allocated to SAFGRAD regional trials are not available to build up necessary bonds between research and extension.

The ACPO has been working primarily with results produced by crop researchers and not integrating his operations into national farming systems research.

Output 4: African scientists and technicians trained on the job.

The evaluation found African officials asserting the view that the training element was an indisputable and unequivocal positive project contribution. Thirteen degree-level participants were enrolled and three additional were being processed for training. The PP had envisioned a long-term training total of 160 student-years. Thus, while a positive element, the level is lower than planned and has started much too late to make a contribution to this phase of the SAFGRAD project. Short-term training is being managed by the international research institutes. Because AID funds were "pooled" with other training money, it was difficult to fiscally isolate training done with SAFGRAD funds. An estimate of 40 is believed reasonable. (The PP log frame indicator anticipates 40 person-years). SAFGRAD headquarters is attempting to gather together more definitive information to ensure more complete documentation.

Output 5: Systematic exchange of crop research information among scientists

Workshops were held in each of the crop research sectors and had participants from a wide selection of SAFGRAD countries. The workshop reports were well produced and distributed but appeared to lack significant technical input. The evaluation team noted that it was unclear how or to what degree workshop recommendations are distributed or acted upon outside the circle of workshop participants. The evaluation also noted information exchange gets a very perfunctory treatment both in the PP and in reality. Conference proceedings are published and distributed, as are IITA and ICRISAT reports, on the basis of fixed distribution lists on a one-time basis. The evaluation recommends a more formal system of information acquisition, storage, and retrieval as a logical element of SAFGRAD's coordinating function. The SAFGRAD Newsletter was viewed by the evaluation as excellent and beneficial in disseminating research information.

Output 6: System for regional research planning and coordinating

Policy and program guidance functions were vested in the Consultative Committee (CC) composed of African research and development officials and representatives of donor nations. The CC was to be assisted by a Technical Advisory Committee (TAC) of senior scientists from SAFGRAD member countries and international research agencies. Up to the time of the evaluation these two committees have been less effective than envisioned by the PP. The primary responsibility for convening the two committees rests with OAU/STRC.

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Meetings of the CC and TAC have been infrequent ( and a liberal interpretation of "meeting" is necessary to state they have met annually as is required by the Agreement). The evaluation team believed the inactivity of these two committees is a primary cause for the project's failure to evolve beyond the research priorities set in the PP, or to truly integrate the activities of the researchers, and concluded there is a clear need to implement and accelerate the functioning of the two committees.

At this date, USAID does not totally adhere or support to this recommendation. The urgent need to restructure the management of the project is acknowledged, but the CC and TAC as originally designed are probably too unwieldy and impotent to have a major impact on the project. Leaner, more functional mechanisms have to be found to manage SAFGRAD and to direct and disseminate research. OAU-AID-contractor negotiations on this important point have recently taken place, and new, more functional, CC and TAC mechanisms have been established.

Output 7:

Research station infrastructure, construction of offices and laboratories at Kamboinse has been completed as planned.

18. Project Purpose

"To: (1) develop improved cereals (millet, sorghum, maize) and legumes (cowpeas, groundnuts) and cultural practices which are compatible with small farm semi-arid farming systems and to promote their adaptations in participating countries; and (2) strengthen the coordination and capability of African Research within a regional framework". In July 1981, at the time of the evaluation, research efforts were in progress to improve cereals and legumes through manipulation of genetic materials enhancing both yield potential and diseases and pest resistance. Most of the effort was taking place at research stations as opposed to on-farm trials. Since the evaluation, ACPOs have been stimulating increased on-farm trials utilizing improved seed varieties. These are still in the guided demonstration stage of utilization by farmers. It is still too early to assess the direct impact of improved seed variety adoption on the potential beneficiaries.

The OAU/STRC provides a broad regional framework within which research under the project is carried out. However, the CC and TAC have not played as active roles in strengthening regional coordination of African research as had been envisioned by the SAFGRAD project.

19. Goal/sub-goal

The project goal is "to increase the quantity and quality of staple food crops effectively available to the increasing populations in the semi-arid zone of Africa". Research efforts to improve food grain quality and production potential were in progress at the time of the evaluation. However, since improved food grain seed was being tested under controlled conditions and not being made available to farmers on a commercial scale, virtually no

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measurable progress was noted in achievement of the project goal. Research results, however, point to substantive future improvement of food crop production which, assuming farmer field trials convince the local farmer of their superiority, should improve quality and quantity of staple food crops. Further, the Purdue Farm Systems Research Unit has considerably expanded its on-farm program since the evaluation.

20. Beneficiaries

Of an estimated 165 million inhabitants in the SAFGRAD countries, an estimated 70-80% are engaged in small farm agriculture. Additionally, others cultivate cereals and grain legumes as their principal staples.

As noted earlier in this PES, the research now being conducted appears promising, but to date, few tangible benefits have accrued to the small-scale farmer as a direct result of project activities.

21. Unplanned Effects

None noted.

22. Lessons Learned

Relationship between donors and OAU were very poorly defined. The agreements made between USAID and participating contractors were also ambiguous and left many loopholes, creating pitfalls for effective project implementation at the program level.

The major implementation weakness has been the failure to fully utilize the project's policy and guidance structures. Inactivity on the part of the Consultative Committee and the Technical Advisory Committee has created a policy vacuum which was filled, in part, by the OAU/STRC Coordinator and the AID Project Officer. They neither can nor should take over the functions which should be carried out by these committees or suitable alternates. This failure has impacted on the regional-level research, and more effort should be given to the oversight of that work in terms of its relevance to SAFGRAD's target group of beneficiaries - the small farmers of sub-saharan Africa.

13. Summary

Background and Summary Project Description:

SAFGRAD represents a major initiative for addressing fundamental constraints to increased food production in the vast semi-arid zones of sub-saharan Africa. The project purpose is to develop improved cereal varieties (millet, sorghum, maize) and grain legumes (cowpeas, groundnuts) and cultural practices which are compatible with small farm semi-arid farming systems; and to promote their adaptation and use in farmers' fields. Project activities fall into two broad areas: first, regionally coordinated research on staple cereals and grain legumes at three selected African research centers; second, support to national research, field trials and outreach programs to further develop, test, and extend improved technologies to farmers.

Policy and program guidance was to be provided by a Consultative Committee (CC) comprised largely of African national crop research and development authorities. A technical Advisory Committee (TAC) was to provide technical oversight and planning. The Scientific and Technical Research Commission of the Organization of African Unity (OAU/STRC) was to perform the vital role of regional coordination and administrative support for the project. As such the OAU/STRC is the grantee. AID's original contribution to SAFGRAD was earmarked in the Project Paper as follows:

| | |
|---|---|
| a. ICRISAT (Samaru, Nigeria) | $1,800,000 |
| b. IITA (Kamboinse, Upper Volta) | 3,307,500 |
| c. ACPO's (five) | 2,562,500 |
| d. Participant training | 2,000,000 |
| e. OAU/STRC Administration | 236,500 |
| f. Conferences | 313,500 |
| g. Commodities and Construction | 443,000 |
| h. Consultants | 234,000 |
| i. AID Project Officer | 570,000 |
| j. Contingencies and Inflation | 2,411,000 |
| | $13,878,000 |

In FY 1982, the project authorization was amended to extend the project from May 1983 to a new PACD of March 1985. In addition, the authorized life of project cost was increased to $16,475,000.

1981 Evaluation and Recommendations

The Semi-Arid Food Grain Research and Development Project (SAFGRAD) was formally evaluated in July 1981. That evaluation found project implementation to be basically on schedule with timely staffing, and personnel of the various implementing organizations working in a vigorous and professional manner. The major implementation weakness had been the failure to fully utilize SAFGRAD's policy and guidance structures. This had impacted on project orientation.

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APPENDIX D

# SAFGRAD TRAINING PROGRAM ACCOMPLISHMENTS

## Long Term Training

According to the Garvey Report, the SAFGRAD Project Agreement was signed in May 1977 but has completed only five operational years.[1] During that time, and up to September 30, 1983 twenty-six candidates have been selected for long term training (including four who are contract funded by Purdue University). Of these, one was at the BS level, one non-degree, sixteen MS and seven PhD. The degree program of one candidate cannot be identified in the files. To date ten have completed their studies, one refused to accept the program, one resigned during training and at least two were dropped for poor academic performance. Three approved candidates are awaiting acceptance by an American university.

Geographically, the candidates have for the most part been selected from Sahelian countries---five Voltaics, six Malian, two Senegalese and one Chadian. Other West African students make up the remainder of the group with five students coming from Guinea, two from Togo and one from Ghana. The remainder of the SAFGRAD countries are represented by two students from Botswana and one from Cameroon.

Plant breeding with emphasis on the major crops of the project---sorghum, maize and millet---is the most frequent major, with ten participants enrolled in this field. Agronomy is represented by four candidates as well as three in soil science. There is also one candidate each in plant nutrition, plant pathology and agricultural hydraulics. The Purdue contract financed long-term participants majoring in agricultural economics.

Academic performance of SAFGRAD participants is very hard to estimate due to the skimpiness of information available in either USAID or SAFGRAD offices. However most students who completed their studies appear to have been reasonably competent and some were considered outstanding by their institutions.

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[1] Garvey Report, a document prepared by a USAID consultant, provides training information through July 1983. Material presented throughout this Appendix draws almost entirely on data in the Garvey Report. There is some paraphrasing and organizational shifts to condense information presented here.



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Recommendations for participants come to SAFGRAD from a number of sources---from SAFGRAD country Ministries of Agriculture, from ACPOs and from the major institutions associated with the project. In most cases selected participants have been working in their country's agricultural research program, often directly in SAFGRAD associated efforts. There would appear to be substantial correlation between academic success and a contractor or ACPO's recommendation.

There appears to be a lack of knowledge by SAFGRAD or other interested parties concerning assignments long-term participant trainees receive on their return home. Although the investment in a participant's education is not lost regardless of his assignment, the objective was to produce trained researchers and ACPOs actively engaged in sorghum, millet, maize and cowpea research. Yet neither the SAFGRAD nor the USAID offices in Ouagadougou receive any notification of student progress, academic program, completion of studies, or date of return, except for Voltaic participants.

The Project Paper and Project Agreement allocated $1,600,000 to long-term training. A recent Project Paper Revision approved August 17, 1983 added $150,000 to the life of project allocations for both long and short term participant training. The specific allocation of this amount between the two presumably will be worked out by OAU/STRC and AID.

PIO/Ps to date have obligated $845,189 for long term training. Assuming a cost of $18,500 per year training costs and an average training time of 2.5 years for a MS and 3.5 years for a PhD degree, an additional $200,000 in accrued expenditures can be anticipated to complete the training of current students and those identified in the pipline.2

Therefore some $555,000 remains in the long term training pipeline even if long term training receives none of the additional $150,000 in the recent project paper revision.3 This

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2 Those students identified in the pipeline for whom funds or additional funds must be obligated are Saidou $42,000; Goukaila $27,400; Fobasso $15,250; N. Coulibaly $46,250 and; Gokally $64,750.

3 The amount may be somewhat larger, since PIO/Ps for individuals who have been counted here, but who withdrew or refused the program (e.g. Hema Idrissa) can be deobligated. Note also that funds for Purdue MS and PhD candidates are not counted here since they are funded under the Purdue PIO/T.

would allow OAU/STRC/SAFGRAD to train an additional twelve students to the MS level or eight to the PhD level, substantially reaching project objectives in long term training.4

## Short Term Training

A more correct term for short term training might be "contract funded" training. All contract training in the project appears to be funded under PIO/Ts and while most of it is short term training, one contractor (Purdue) has implemented mostly long term degree training. The Project Paper set an output of 65 technicians for an average of six months training each. The Project Paper and subsequent project agreements allocated 480,000 for short term training.

IITA: The goal for short term training to be conducted by IITA as specified in their contract was ten trainees annually for an average of four to six months each. IITA's training effort includes a varied number of components. An important one is in-service training of six months duration at Kamboinse in which 16 students from nine SAFGRAD countries have been enrolled since 1980. Technicians were trained in maize and cowpea breeeding, maize and cowpea agronomy and entomology. An additional three Voltaic university students received graduate thesis guidance in maize breeding and cowpea agronomy and two Voltaic students received three months training in entomology at the Institute Practique in Kolo, Niger. Twenty students participated in a six-week course in maize and cowpea production at Kamboinse. In addition to short course training carried on by the IITA/SAFGRAD team at Kamboinse one can include annual four month training programs in maize and cowpea production give at IITA headquarters in Ibadan.5 An average of twenty-five technicians representing a wide cross-sector of SAFGRAD countries have been trained annually since 1980. SAFGRAD funds have supported approximately ten of these trainees. Many of the IITA trainees were extension agents receiving production oriented training.

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4 Word of caution. Although $550,000 remains in this long term budget, overall SAFGRAD expenditures may be overruning their budgets and training funds might have to be reallocated to such project components to keep within total project authorizations. It appears that the total project pipeline as of September 30, 1983 and from the Purdue, IITA and ICRISAT contracts is only about $170,000. A pipeline analysis of each project component should be made at an early date.

5 Rapport 1980, IITA/SAFGRAD. Undated IITA, Ouagadougou. p. 17.

In addition, IITA has also organized maize and cowpea monitoring tours in which national scientists from SAFGRAD member countries have participated. These tours are for approximately three to four weeks. This activity is considered a valuable training experience for different national scientist who visit five or six national programs as a group along with IITA/SAFGRAD researchers during the crop season to compare the strengths and weaknesses of each program for mutual benefit. Maize and cowpea scientists from Senegal, Upper Volta, Mali, Nigeria, Ethiopia, Zimbabwe, Gambia, Benin, Botswana, Ghana, Somalia, Tanzania, Togo, Central African Republic, Kenya and Cameroon have participated in one or more of these training tours.

IITA was allocated $76,000 per year for all training for the first two years of its original contract. Subsequent amendment dropped this figure to $42,000 per year for training at IITA and $24,000 per year for local training. The mosdt recent contract amendment (No. 3, dated October 23, 1982) allocates $40,000 to IITA headquarters training and $70,000 to local training from January 1982 through May 1983. A contract amendment proposed by the USAID/Ouagadougou ADO to carry IITA through December 31, 1983 would not add funds to IITA headquarters training but would put another $21,900 into local training a Kamboinse.[6] IITA expenditures on SAFGRAD training at their headquarters from the beginning of the project through March 1983 (the last period for which invoices are available) come to $103,628.

It would appear that IITA has accomplished most of its contracted assignment for short term training and that budget restraints have not been a limiting factor. Although IITA short term training has used more than half of the funds allotted, this is to be expected since IITA was assigned by their contract a large share of the short term training load.

ICRISAT: All ICRISAT training is currently done at their training facility in India. Since the inception of the SAFGRAD program, nine ICRISAT/SAFGRAD affiliated technicians have completed a six month technician level course, eight of them in crop production and one in crop improvement. Eight of the nine attended the course in 1982, the ninth in 1983. Countries represented were Guinea (4), Cameroon (3), Mali (1) and Botswana (1).

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[6] The same proposal would give IITA $32,800 for post doctoral training.

ICRISAT is in the process of establishing its African headquarters just outside Niamey, Niger and apparently upon its completion (1985) plans to offer technician level training at that facility. This should greatly increase the opportunity for technical training in the sorghum/millet phase of SAFGRAD.

ICRISAT in its contract received an allocation of $40,000 for short term training for the first year and $60,000 for the second year. Total training allocation was reduced to $63,406 by contract amendments and increased to $103,406 by Amendment No. 4 dated August 5, 1982. The ADO proposed budget for extending the contract through December 31, 1983 would give them an additional $43,800 for training.

ICRISAT's total expenditure for short term training from the beginning of the project through March 1983 comes to $63,406 for the nine students trained. It has sufficient funds to increase its level of short term training assuming qualified candidates can be found and there is room at their training facility in India.

Purdue: Training at Purdue under its SAFGRAD contract has been almost exclusively at the graduate degree level. One of its SAFGRAD associates received two months training in computer programming and one attended a two week farming system course in Zimbabwe. Four of its participants are currently enrolled in MS or PhD programs on the Purdue campus.

It appears that the Purdue team recognizes the need to place greater emphasis on technician training, a recent internal study recommending "a training program of 1 to 3 months be organized in Uppper Volta in early '84 for the FSU project personnel and personnel from national organizations" and further suggesting that "principal emphasis in 1984....be upon training and scientific interaction with the Voltaic national agencies in both the extension and the agricultural research divisions."

Purdue's training allocation under its contract was $55,000 for participant training. This amount was retained in the budget attached to Contract Amendment No. 10 dated January 8, 1982 and no line item changes are noted through Ammendment No. 15 dated June 7, 1983.

Purdue indicated a cumulative training (tuition) expenditure through March 1983 of only $9,789. Since they have entered four participants into long term training, two of the MS and two at the PhD level, it is clear that their training budget is insufficient. The problem will be accentuated if they are to follow through on their decision to increase short term training in Upper Volta.

APPENDIX E

# PERSPECTIVES ON STRENGTHENING EXTENSION-RESEARCH LINKAGES

The following analysis is presented to clarify the steps involved in transmitting researcher findings to actual practices in farmers' fields. Technology transfer is a process consisting of overlapping phases and repetitive teaching, interestingly packaged. The process is often slow as it must take farmer attitudes, traditions and beliefs into account. Simply presenting factual information rarely generates practice change in risk resistant populations. Ideally, the research-to-extension-to-farmer chain includes the following phases.

Phase I - Adaptive Research

- International and regional research centers develop improved varieties in the five SAFGRAD crops and identify agronomic practices for more efficient production. These are sent to national research centers for testing for local adaptability. Their feedback results in further refinement.
- National research centers send successfully tested varieties and protocols to international and regional research centers for further developmental work to improve selected characteristics or agronomic practices. International and regional centers exchange

information on refinements with national centers until an acceptable product results. Information at each stage of experimentation is provided to the national research centers of SAFGRAD member countries. Ultimately, recommendations are provided to all member states on potential benefits of the new technology.

- National research centers participate in international and regional variety and cultural practice trials on an on-going basis. Results of experimental work are disseminated on a regular basis to international, regional and national centers working on SAFGRAD crops, as well as to African universities, agricultural colleges and technical schools, ACPOs, FSUs national extension agencies and private sector enterprises related to the commodity/practice tested.
- Conduct in-region/in-country sub-station research trials to further screen materials and methods and disseminate findings to entities described above.

Phase II - Applied Research

Engage in farming systems research to determine socio-economic parameters for local farmers. If national efforts are not feasible due to constraints (funds available, number of agro-climatic zones, tribal customs and traditions) representative sub-regions should be identified for this effort.

Phase III - Pre-Extension Testing

Based on recommendations from national research centers and using information generated by farming systems units, conduct on-farm trials to test adaptability and acceptability of varieties and cultural practices. Identify the most promising and best adapted for use under typical farmer constraints. Focus on making consistant, even if small, gains through feasible improvements or modifications in the farmers traditional methods. Concurrently, conduct end-user product/practice acceptance tests (quantity, quality including local preferences and tastes).

Phase IV - Extension Liaison

Disseminate appropriate information on proven "promotable" findings:

- Brief local government officials, influential leaders, donors and others able to further disseminate efforts and support farmer adoption programs.
- Conduct tours of local on-farm trials.
- Plan seminars, meetings or workshops for potential extension collaborators.
- Provide news releases for local, mass media outlets.
- Participate in local harvest festivals or similar opportunities for sharing information.

Phase V - Extension Program Development

In collaboration with extension, develop and pre-test educational programs directed toward farm family adoption.

- Identify other agencies that can conduct and/or assist in technology transfer through education/demonstration to gain farm family involvement and support.
- Provide training for other trainers.
- Provide models for use in training farm families including:
  - * protocols
  - * schedules
  - * demonstration packages
  - * support materials (posters, flannel boards, pamphlets)
  - * in-process support needed (equipment, inputs, operations funding)
  - * plan for farmer assistance, monitoring and evaluation
  - * plans for feedback and recommendations to researchers and appropriate others on strengths and weaknesses of their technology used in farm operations.

Phase VI - Extension Implementation

As the outline presented above suggests, technology transfer is complex, potentially expensive and time consuming. Yet without comprehensive linkage-transfer efforts, needed research results (even more expensive) are not widely used. The research linkage to the extension transfer process must be recognized as sequential and developmental---with very high long term cost-benefit potential.

ACPO responsibilities should emphasize Phase IV efforts. In cases where Phase III or Phase V work is deemed essential initially this work should be viewed as evolutionary with the intention of moving these responsibilities entirely to appropriate national organizations as soon as possible.

The amount of time needed to progress through initial phases of the research linkage to extension transfer to farmers can be roughly calculated. Assuming that Phase I is fully operational and the country is ready to test national varieties or cultural practices at the applied level:

First year - Phase II

Second year - Phase II (2/3), Phase III (1/3)

Third year - Phase II (1/3), Phase III (2/3)

Fourth year - Phase III

Fifth year - Phase III (2/3), Phase IV (1/3)

Sixth year - Phase III (1/3), Phase IV (2/3)

Seventh year - Phase IV

Comparable time must be added if the ACPO is expected to assist in Phase V. Furthermore, if a country does not have the capacity to fully implement Phase VI, developing a companion SAFGRAD extension model should be considered. This would be staffed by an additional ACPO Team on definite terms. As extension activities are on-going, it must eventually become the host country's responsibility to provide them on a permanent basis. The ACPO should serve to stimulate the incorporation of research findings, adapted to local conditions, into extension

programs, as well as recommendations made by extension agents to get the researchers attention. The research-extension connection must be truly collaborative and two directional to be effective.

The ACPO program should be perceived as developmental, one that evolves through all phases in the research extension continuum. Maximum total time needed, if a country has none of the phases or supportive structures in place at the start of the program is approximately 18 years---calculated at three years for each of the six phases.

## APPENDIX F

## LIST OF CONTACTS

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Dr. John Scheuring, Sorghum Breeder, ICRISAT, Bamako, Mali

Dr. Rattan Lol, Soil Physicist, IITA, Ibadan, Nigeria

Dr. Ermond H. Hartmans, Director General, IITA, Ibadan, Nigeria

Dr. Bede Okigbo, Deputy Director, IITA, Ibadan, Nigeria

Dr. Shiv. Raj. Singh, Program Leader, Grain Legumes Improvement Program, IITA, Ibadar, Nigeria

Dr. Efrom, Cereals Improvement Program Leader, IITA, Ibadan, Nigeria

Mr. John H. Da es, Director (Acting) of the Institute for Agricultural Research, Samaru, Nigeria

Dr. Joseph Yayock, Deputy Director IAR, Samaru, Nigeria

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Dr. Brhane Gebrekidan, ICRISAT/SAFGRAD, Nairobi

Mr. John A. Becker, Agriculture Development Officer, USAID/UV

Mr. Roger Bloom, Project Manager, SAFGRAD, USAID/UV

Mr. Larry Heilman, Deputy Mission Director, USAID/UV

Mr. Emerson J. Melaven, Mission Director, USAID/UV

Mr. Julius Walker, US Ambassador, Upper Volta

Mr. Mike Rugh, Program Officer, USAID/UV

Mr. Robert Zigler, Training Officer, USAID/UV

Mr. Abdel Moustafa, Project Manager, USAID/Cameroon

Mr. Bill Litwiller, Agriculture Development Officer, USAID/Cameroon

Mr. Bernard Wilder, Deputy Mission Director, USAID/Cameroon

Mr. Jacques-Paul Echebil, Director General, Institut Recherche Agricole, Cameroon

Mr. Bill Slocum, Logistics, USAID/Cameroon

Mr. Owen Gwathmey, ACPO, Cameroon

Mr. Martin Fobasso, Cameroon National Counterpart ACPO

Mr. Mossa Kabore, ACPO, Upper Volta

Mr. Ouro-Gnaou Talley B'fah, SAFGRAD/ACPO Program Technician, Upper Volta

Mr. T. Aithnard, Directeur de Recherches Agronomique, Togo

Mr. Nguyen-vu, Conseiller Technique, Direction Recherches Agronomique, Togo

Mr. Batassi Kpo, Togo National ACPO Counterpart

Mr. Robert Nicol, [illegible] Upper Volta

Mr. Andrey [illegible], Togo

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Mr. Dolo, Chef du service ORA, Bamako, Mali

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Mr. Jerry Johnson, Former expatriate ACPO Mali

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Dr. Herbert Ohm, Purdue Team Leader and Agronomist, FSU, Ouagadougou, Upper Volta

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BEST AVAILABLE

APPENDIX G

## Qualifications and Functions of Additional Postions for OAU/STRC Coordination Office

### Planning and Organization Officer

Functions

- To develop "marketable" projects for SAFGRAD presentation to new and present donors;
- To assist in the organization of SAFGRAD coordination activities such as workshops, conferences, seminars, etc.;
- To activate a SAFGRAD publications clearing house operation for all member countries and interested institutions;
- To follow-up on the treatment and publication of SAFGRAD data, newsletters, etc.

Qualifications

- Some agricultural training;
- Some management training and experience;
- Proven writing and editing skills;
- Computer use skills;
- Fluency in French and English;
- African national (preferred)

## Director of Training and Extension

### Functions

#### Training

- Conduct and update a training needs assessment;
- Define the relevant long and short term training program;
- Coordinate regional training activities;
- Develop selection criteria for SAFGRAD funded training participants;
- Solicit member countries for training participants;
- Help training candidates on procedural matters;
- Define active training participants' follow-up procedures.

#### Extension

- Conduct needs assessment;
- Define the role of ACPOs and the necessary preparation;
- Coordinate ACPO training, work orientation and network participation;
- Facilitate liaison of ACPOs with regional and international centers;
- Seek ACPO program donors;
- Help develop a research-extension linkage in

member countries.

- Help determine and activate the appropriate national setting for ACPOs;
- Assist in contractual management in ACPO program and serve as ombudsman for ACPOs.

Qualifications

- Some agricultural training and extension experience;
- Some management training and experience;
- Proven writing and editing skills;
- Computer use skills;
- Fluency in French and English;
- African national (preferred).

Appendix H

## Evaluation Team Travel Itinerary
January 28 to March 1, 1984

| | |
|---|---|
| January 28 | McKenna, Mitchell arrive Ouagadougou |
| January 31 | Taylor arrives Ouagadougou |
| February 1 | Simmons arrives Ouagadougou |
| February 3-12 | McKenna to Cameroon return Ouagadougou |
| February 6-12 | Simmons, Taylor, Mitchell to Nigeria return Ouagadougou |
| February 10 | Poiroir arrives Ouagadougou |
| February 11 | Albert arrives Ouagadougou |
| February 15 | Frolik and Gray arrive Ouagadougou |
| February 16 | McKenna to Togo, Senegal and Mali |
| February 17 | Albert to Senegal, Mali |
| February 18 | Simmons returns to Mali (home base) |
| February 20 | Taylor to Mali |
| February 21 | Bekure arrives Ouagadougou |
| Feburary 25 | McKenna, Albert, Taylor return Ouagadougou |
| March 1 | Team departs |

Harwood, Maryland
31 July 1981

Mr. Robert E. Gray
AFR/RA, Rm. 3325 NS
USAID
Washington, DC 20523

Dear Bob:

Enclosed you will find the copy of the SAFGRAD Mid-Term Evaluation Report which you loaned me for review and comment. You will find my various notes and corrections along the margins.

I found the report well done albeit repetitive, as large parts of the main text are repeated in the appendices. Most of the recommendations seem pretty well on target. Two broad areas of concern which the report fails to discuss are (1) the cost-effectiveness of the various SAFGRAD components, and (2) the relative isolation of East African member countries from the mainstream of SAFGRAD.

The only significant factual error I noticed pertains to the source of varietal materials entering into the SAFGRAD Regional trials. The ET implies that these materials are largely or entirely from IITA or ICRISAT, when in fact the majority of entries have emanated from the national breeding programs of the member countries. This error comes up on pages 9, 48, 49, 121, and 133.

Another factual point is the scope of Frank Brockman's work, described on pages 29, 96, and 97. He has conducted trials and coordinated regional trials on a broad range of cowpea agronomic questions (planting date, density, relay cropping, etc.), not just fertilization.

The implications of relieving the ACPO's of regional trials (pp. 50, 128, 133) deserve additional comment. One which I marginally noted pertains to the capacity of certain national programs to properly conduct these trials. The other has to do with the selection of material that the ACPO's pre-extend. It occurs to me that part of the problems that Jerry Johnson, Cors Korteweg, and Paul Christensen (p. 107) have had in their pre-extension efforts stem from use of such ill-advised varieties as E 35-1 and 65/30 sorghum. Had their pre-ext trials been preceded by regional trials to demonstrate the characteristics from a broad range of materials, they doubtless could have selected more appropriate varieties to pre-extend. There is a logical (and very classical) progression from in-station variety trials to pre-extension trials which is dangerous to short-cut. Certainly the value of the ACPO's pre-extension trials depends heavily on the materials they use.

The role of the Regional Variety Trials to the ACPOs is that of comparative screening and selection, not as a favor to

IITA or ICRISAT, nor simply for trials' sake. The better the expression of plant characters and potential, and more uniform the trial, the better the odds are of making an appropriate selection. Conducting these trials under "typical farm conditions" as proposes the ET (pp. 33, 92) would be counter-productive due to increase in experimental error. It is precisely the role of the pre-extension trials to test under "typical farm conditions", not that of the regional trials.

Thanks for the opportunity to review the paper. Hope you can manage to visit the project again in the near future. You are welcome in Maroua at any time.

Sincerely yours,

Owen

C. Owen Swathney
ACPC Agronomist

U.S. Department of Agriculture
Office of International Cooperation and Development

July 1981

Project No. 698-0393

# SEMI-ARID FOOD GRAIN RESEARCH AND DEVELOPMENT

# (SAFGRAD)

## Mid-term Project Evaluation

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ANNEX

A. ORIENTATION AND REORIENTATION OF THE SAFGRAD PROJECT..... 53

# PREFACE

This constitutes the final report of the mid-term evaluation of Project No. 698-0393, Semi-Arid Food Grain Research and Development (SAFGRAD).

The project purpose is to develop improved cereal varieties (millet, sorghum, maize) and grain legumes (cowpea, groundnuts) and cultural practices which are compatible with small farm semi-arid farming systems, and to promote their adaptation and use in farmers' fields. The development of improved technologies is crucial to the success of agricultural development programs throughout the region which are based on the strategy of increasing small farm productivity.

Project activities fall into two broad areas: first, regionally coordinated research on staple cereals and grain legumes at three or more selected African research centers; second, support to national research, field trials and outreach programs to further develop, test and extend improved technologies to farmers.

Field work for the evaluation began in Ouagadougou, Upper Volta on May 18, 1981 by the five-member team, and encompassed visits to the prime sites of SAFGRAD regional activities in Senegal, Mali, Nigeria, and Upper Volta.

The purpose of the evaluation as specified in the PIO/T is to determine (a) the effectiveness of the funded research coordination, extension and training efforts; (b) the degree of adherence to the project plan and objectives; (c) to recommend revision of the planning document, if necessary, and (d) project and recommend a U.S. supported follow-on project.

Conferences were held with representatives of international and national research and extension organizations, expatriates, and farmers in villages at points throughout the selected SAFGRAD nations. The season was such that we saw only first efforts of the newly established fields.

The text of the evaluation report is in two sections. Section I is an executive summary of findings and a summary of the evaluation team's recommendations. Section II is an analysis, with recommendations, of the major elements of the SAFGRAD project: the project's overall orientation, project management issues, regional level research, the Farming Systems Unit, and the Accelerated Crop Production Officer program.

The SAFGRAD project is ambitious in its design, envisaging multiple mechanisms to deal with diverse problems on a continental scale. It is the opinion of the Evaluation Team that SAFGRAD is an extremely promising project for the future years of African food production. More than that, many project elements are already functioning in a very creditable fashion.

The principal players: the research institutes, Accelerated Crop Production Officers, and country nationals are all making serious and commendable efforts toward SAFGRAD's goals. The OAU Coordinator and the AID Project Officer deserve special praise for their work.

The Evaluation Team would like it accepted as a given that it views the project with a special respect and commends OAU/STRC, AID, and cooperating donors and SAFGRAD member countries for this timely and serious attack on a problem of critical concern. The Team felt its work would be of most benefit to the parties concerned if it concentrated on those aspects of the project that seemed to be constraints or impediments to its effective implementation.

SAFGRAD is a little more than half way through its five year life, and in the very nature of such a project, little can be expected in the way of final output such as research results or innovations adopted by farmers. Therefore the emphasis in this evaluation is much more on process than on products and outputs. We have confidence these outputs will be there for future evaluation.

# I. EXECUTIVE SUMMARY

## A. General Findings and Recommendations

### 1. Project Concepts

Low productivity in African agriculture can be laid, in large part, to the lack of improved technologies readily adapted to small farm conditions. SAFGRAD's substantive and organizational concepts were aimed at meeting this challenge, and it is these concepts which are the project's greatest strength.

a. The Scientific and Technical Research Commission of the Organization of African Unity (OAU/STRC), headquartered in Lagos, provides the umbrella for obtaining necessary multi-country cooperation in research and in facilitating the flow of people, materials and ideas between national and regional institutions. It also serves as the project's liaison with the donor community for financial material and technical support.

b. Project Management and Guidance were specified to be vested in four structures:

(1) The Consultative Committee (CC), composed of representatives of OAU/STRC, SAFGRAD member nations, and project donors, was intended to give overall policy and program guidance to the project and to serve as the authority behind SAFGRAD's administration.

(2) The Technical Advisory Committee (TAC) of senior scientists from member countries and the implementing research agencies was to be CC's advisory body on research and other technical matters. The substance of its advice was to be drawn from the on-going work of the implementing agencies, their workplans for future activities, and other research documentation relevant to the sub-Saharan region.

(3) The OAU/STRC Project Coordinator in Ouagadougou is the chief administrative officer of SAFGRAD and, under the guidance of the CC, serves a facilitating and coordinating role among SAFGRAD operational entities and between those entities and cooperating countries.

(4) The AID Project Officer in Ouagadougou oversees AID inputs to the project and serves as a liaison, on AID's behalf, with other donors, cooperating countries, implementing agencies, and other USAIDs.

Conceptually, these structures provide SAFGRAD with a guidance and management mechanism to coordinate and lead technological development in the project region.

c. Regional Level Research was correctly seen as the focal point for the development of appropriate agronomic technologies. The

selection of the international research institutions, IITA and ICRISAT, as the implementing agencies lent valuable prestige to SAFGRAD as well as ensuring high level expertise.

d. The Farming Systems Unit (FSU) was intended to provide SAFGRAD an understanding of small farm conditions and how agricultural research could benefit small farms.

e. The Accelerated Crop Production Officers (ACPOs) were the means identified to help SAFGRAD address the well recognized problem of moving research off the station and into the hands of farmers. ACPOs were to provide an in-country linkage between national research institutions and national extension programs. In addition, they were to serve as a link between research at the regional level and that at the national level.

f. Regional Research Coordination was recognized as being necessary to effectively utilize the not inconsiderable research resources already in place at national research agencies. Devices proposed to effect this coordination are:

- Scientific conferences and workshops
- Regional variety trials
- Farmers' field trials
- Training
- Exchange of scientific reports and studies

The Evaluation Team fully endorses these project concepts as being an appropriate resource response to the technological problem of food production in Africa.

2. Project Implementation and Orientation

For the most part, project implementation has been on schedule. Save for the AID-financed ICRISAT team at Samaru in Nigeria, staffing of the project was timely, and personnel of the various agencies began work in a vigorous and professional manner. This effort is continuing.

The major implementation weakness has been the failure to fully utilize the project's policy and guidance structures. Inactivity on the part of the CC and TAC has created a policy vacuum which has been filled, in part, by the OAU/ STRC Coordinator and the AID Project Officer. But they neither can nor should take over the functions which are properly those of the two committees.

The major substantive impact of this failure has been on the orientation of the project. Thus, while most project emphasis has been placed on regional level research, little effort has been given to the oversight of that work in terms of its relevance to SAFGRAD's target group — the small farmers of sub-Saharan Africa.

Further, a vital function of SAFGRAD leadership has been seriously neglected: the marshalling of existing SAFGRAD resources, represented by the research and extension agencies of member countries, for a coordinated research and development attack on the problem of increasing foodgrain production in the region.

3. Recommendations

Recommendation 1. SAFGRAD policy and guidance functions should be strengthened by revitalizing the CC and TAC and institutionalizing their roles within the project.

Recommendation 2. Greater relative emphasis should be placed on coordination of national with regional level research efforts and relatively less emphasis placed on direct research at the regional level. Doing so would help recreate the operational spirit of the research and development systems which existed without regard for national boundaries in pre-independence times. Greater coordination of all research resources can have a larger impact than can the national and regional institutions working independently. This effort should be pursued vigorously by OAU/STRC with AID support.

Recommendation 3. Attention should be given to the permanence of SAFGRAD. Institution building should be made an explicit purpose of the project in order that regional level research centers and regional research networks do not fall apart when AID support is removed.

Proposals augmenting and supporting these three recommendations can be found in Sections II-A and II-B of this report.

B. Project Management

Though policy and program guidance should properly come from the CC and TAC, the implementation of policy is a function of the SAFGRAD headquarters staff at Ouagadougou: OAU/STRC Coordinator and the AID Project Officer. Given the complexity of the project, the demands of day to day administrative burdens, and the absence of policy guidance from above, these two officers have been doing a remarkably good job.

Revitalization of the CC and TAC and the recommended relative shift of project operational emphasis from direct regional level research to the coordination and integration of all research and development resources in the region will impose additional burdens on this staff. For the OAU/STRC Coordinator, in particular, this will mean more emphasis on dealings with member governments' research and development agencies and with donor governments.

Furthermore, the Evaluation Team believes that these actions and the permanence of SAFGRAD would be supported by enhancing the role of OAU/STRC relative to that of AID in the administration of the project.

Major recommendations to improve project management are:

Recommendation 4. OAU should be more active in pursuing donor support for SAFGRAD.

Recommendation 5. Consideration should be given to empowering OAU/STRC as the contracting body for technical assistance activities.

Recommendation 6. The autonomy of the OAU/STRC Coordinator in Ouagadougou with respect to OAU/STRC headquarters in Lagos should be maintained in the making and implementation of operational decisions. The relationship between the two should be similar to that of the president of a corporation and the chairman of its board of directors.

Recommendation 7. The operations of the Ouagadougou office should be strengthened by adding:

1. A Coordinator of Research to be responsible for the management of all technical research matters.

2. One or two persons to the staff of the OAU/STRC Coordinator so that fiscal matters can be professionally handled.

C. Regional Level Research

SAFGRAD's major emphasis has been on varietal development research at the regional level. Most progress has been made on maize development by IITA at Kamboinse in Upper Volta. AID-funded work on sorghum by ICRISAT at Samaru, Nigeria, had early delays due to the contractor's initial staffing problems and the lack of of an agreement with Nigeria.

Major issues in the conduct of regional level research are:

1. Research resources, primarily ICRISAT at Kamboinse, which are funded by donors other than AID are not integrated with SAFGRAD. This raises the question of their responsiveness to efforts at research coordination by the project's management.

2. The use of national research stations as regional research centers is causing some problems. At Kamboinse, IITA and ICRISAT dominate research activities, and at least one Voltaic official expressed concern over the loss of control of their own research program. At Samaru there was an incomplete integration of the AID-funded ICRISAT staff there.

3. Research program emphasis is on the development of varieties whose full potential requires inputs farmers are not now able to employ. Soil and water research have been given till now less emphasis than desirable.

Major recommendations regarding regional level research are:

Recommendation 8. OAU/STRC, with AID support, should negotiate with the other donors and the implementing agencies they fund to bring them more closely into the SAFGRAD fold and achieve greater SAFGRAD influence over their research activities.

Recommendation 9. AID and OAU/STRC should seriously consider placing the regional research centers under full SAFGRAD management to avoid questions of national sensitivity.

Recommendation 10. Greater regional level emphasis should be placed on soil and water research. Breeding work should be aimed at varieties adapted to farmers' current management and levels of input. Greater coordination with the Farming Systems Unit would be helpful in this regard.

D. The Farming Systems Unit

The Farming Systems Unit (FSU), implemented through a contract with Purdue University, was intended to give SAFGRAD a capability for basing its research and development activities on an understanding of the farmers' decision-making environment.

The FSU Team chose to accomplish its assignment by concentrating on village level studies in Upper Volta. Its plan of work called for detailed socio-economic surveys in the villages to provide data for models of production-consumption behaviour. Results of this phase were to provide a basis for testing and extending promising agronomic interventions and for guiding research at the regional level.

Management problems in data gathering and a lack of computer capacity for tabulating and analyzing the data resulted in a failure to complete the planned formal analysis.

Partial, less formal, analysis of the data and experience in working with villagers have permitted the team to begin an on-farm agronomic trials program. This program is based on the team's belief that the major short-run impediment to increased production is a labor constraint at seeding and weeding time.

Tests of an animal drawn seeder and other devices are intended to reduce the seeding labor constraint, help permit more timely weeding and increase yields somewhat through slightly improved tillage.

Major issues for the FSU are the focus of its work through the remaining life of the current SAFGRAD project and the direction it should take in any follow-up project. Bearing on these issues is FSU's relationship with the overall regional thrust of SAFGRAD and USAID/UV's planned participation in a Voltaic project which is intended to have a farming systems research component.

The Evaluation Team's major recommendations for the FSU are:

Recommendation 11. For the remaining life of the current SAFGRAD project the FSU Team should concentrate on the adaptive farm trials component of its program. Only that data should be saved from the earlier large-scale survey work which contributes directly to the agronomic trials. Surveys should continue, but at a level which focuses on the quick identification of major production constraints and intervention opportunities. This activity will form a good experiential base for the farming systems component of the Voltaic project in which USAID/UV will be participating.

Recommendation 12. For the follow-up project, the FSU should have a regional, rather than national, orientation. Major elements of that orientation include:

1. Regional networking among national farming systems programs, with emphasis on inter-program communications.

2. Assisting regional level research centers in setting research priorities.

3. Assisting SAFGRAD member nations in implementing farming systems programs and integrating them with on-going research and extension operations.

Management efficiency of the FSU's regional orientation would be aided by splitting it into two portions -- one for West Africa and one for East Africa.

E. Accelerated Crop Production Officers

The Accelerated Crop Production Officer (ACPO) was to have two roles in the country to which he is assigned: (1) liaison between national and regional level research and (2) liaison between national research and national extension. In the former case this has meant his being responsible for regional trials of varieties and technologies coming out of the regional level research centers and in some cases from national research programs.

Each of the AID-supported ACPOs contacted by the Evaluation Team (ACPOs assigned to Senegal, Mali, Cameroon, and Upper Volta) has made his own accommodation of his mandate to the resources and opportunities found in his country of assignment. Save for the ACPO in Senegal, whose assignment was so recent that no judgment of performance could be made, each appears to be doing an excellent job.

In the context of the overall SAFGRAD mission, and particularly as that mission involves the coordination of national with regional level research, the Evaluation Team believes the ACPO to be more valuable in his national research-extension role than as being responsible for

regional variety trials. Thus, the Evaluation Team believes that regional-national coordination would be furthered by making regional trials an integral part of the on-going national research program.

Recommendations for improving the ACPO role are:

Recommendation 13. The ACPO role as liaison between national research and national extension should be his only mission. The permanent research staff of the national centers should take over responsibility for regional research trials.

Recommendation 14. ACPOs should be assigned to national farming systems programs in order to provide "leverage" to the farming systems' extension activities beyond the immediate geographic areas in which they are working.

## II. FINDINGS AND RECOMMENDATIONS

### A. General Overview and Orientation of SAFGRAD

#### 1. Project Objectives

Through regionally coordinated research and support to national research and development programs, the SAFGRAD project is aimed at developing improved varieties and cultural practices for sorghum, millet, maize, cowpeas, and groundnuts which are compatible with small farm production systems in the semi-arid regions of Africa. It is interesting, and unfortunate, that no mention is made in the AID project paper of the permanence of SAFGRAD or of the long-term institution building required to achieve the project's objectives.

#### 2. Project Components

##### a. Management and Coordination

SAFGRAD was created as an instrumentality of the Organization for African Unity's Scientific and Technical Research Commission which provides regional coordination and carries out day to day administration of the project.

Policy and program guidance functions were vested in a Consultative Committee (CC) composed of African research and development officials and representatives of donor nations. The CC was to be assisted by a Technical Advisory Committee of senior scientists from the SAFGRAD member countries and international research agencies. The policy and operational implications of the relative inactivity of these two groups are reviewed in Section II-B.

##### b. Regional Level Research

Varietal development and agronomic research for the five SAFGRAD commodities was to be concentrated at four research centers

in West Africa. These centers are national research centers at which it was agreed that a regional focus to the research program would be adopted. Donors would assist in this regionalization by stationing ICRISAT and/or IITA scientists whose scientific specialties would complement those of the national scientists already in place.

Kamboinse, in Upper Volta, was something of a special case. Though nominally a regionalized national center, the IITA and ICRISAT teams assigned there so dominate the work that it is, in fact, SAFGRAD's regional research center.

Two issues in this regard, which will be discussed more fully in Section II-C, are:

- A more complete integration into SAFGRAD of the ICRISAT inputs which are funded by donors other than AID.

- The value of the concept of the regionalized national center, as opposed to that of exclusively regional research center(s) under the SAFGRAD label.

Apart from the strictly technical expertise IITA and ICRISAT possess in the SAFGRAD commodities, their selection as implementing agencies lends valuable prestige to the project.1/

c. Regional Networking

Coordination among SAFGRAD regional research and national research was to be achieved through

- Regional trials of varieties and other new technologies from the regional centers.

- Scientific conferences.

- Exchange of scientific reports and studies.

The regional network concept has so far not been exploited sufficiently in achieving SAFGRAD's purposes.

d. Accelerated Crop Production Officers (ACPOs)

AID-supported ACPOs were to be placed in five SAFGRAD countries as a part of national research institutions, and their activities were to fall under two headings:

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1/ It is likely that only one other agency, the U.S. Department of Agriculture, could offer equivalent prestige.

- Linkage between regional and national research programs.

- Linkage between national research and extension 2/ programs.

It was recognized that concentration in one or the other of these two areas would be likely in each case.

e. Farming Systems Unit (FSU)

The FSU, stationed at Kamboinse in Upper Volta, was given multiple responsibilities:

- Analyze small farm conditions and the application of new technologies to those conditions.

- Design, help organize, and analyze farmer field trials and studies.

- Formulate strategies regarding the development and application of small farm relevant technology.

- Develop recommendations regarding physical research priorities.

To carry these out the FSU would require an experienced staff with extensive logistical and technical support.

3. Critical Review of SAFGRAD's Approach to the Development of Improved Food Grain Technologies

Before independence the Colonial powers established an agronomic research and extension structure in sub-Saharan Africa which focused on cash crops as raw materials for their own industries and which could not be efficiently produced at home.

The notable features of that structure were:

- Centralized management, without regard for political boundaries.

- Complete integration of research, extension, and production within ecological zones.

- Specialization by commodity and commodity group.

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2/ In much of the SAFGRAD documentation the term "development" is used in discussing the extension function. It was felt that most readers of this report would be more comfortable with the term "extension".

The structure was highly efficient in accomplishing its objectives, but its emphasis on cash crops did not provide a technological and resource base for improving food production.

With independence, each country was forced to mobilize its weak resources to organize and undertake its own agronomic research and extension programs. Countries have so far not been able to reorient these programs successfully toward food crop research and extension, nor have they been able to maintain the regional integration that prevailed in the colonial period.

The SAFGRAD project was intended to provide both the reorientation toward food crop development and assist in regional integration. In attempting to do so SAFGRAD was created not as one project, but three:

a. Centers for Regional Level Research in which funds were provided to enable teams from the international research centers, IITA and ICRISAT, to carry on the research programs for specific mandated crops. (Although for IITA this has meant an expansion of its activities out of the humid and into the semi-arid zone.) Thus, work at the regional center emphasizes the development of high yielding varieties without regard for the inability of farmers to command the auxiliary resources required for them to achieve their yield potentials. Further, this work seems to have proceeded without account being taken of similar or related research undertaken or on-going in the SAFGRAD countries except for the donation of some IRAT genetic lines to SAFGRAD.

b. The Accelerated Crop Production Officer (ACPO) program which, insofar as a regional orientation exists, should ideally have promoted an integration of regional with national research but, in fact, has not. In those countries in which the ACPO has a regional function, the integrating device -- the regional trials of the technologies produced by IITA and ICRISAT -- has largely been something the ACPO does and is not an integral part of the on-going program of the national research institution.

c. The Farming Systems Unit (FSU) in the context of SAFGRAD should ideally have had a regional orientation. Instead, it has concentrated its efforts on so-called downstream work in one country, Upper Volta.

The current activities of SAFGRAD's various implementing agencies are consistent with the guidelines provided by the project paper and, for the most part, are being vigorously pursued.

It is possible, however, to carry this single-mindedness too far. The project management structures which were in the project paper should provide the mechanism for continuous review and modification of activities and resources as conditions change or unforeseen contingencies arise.

In the view of the Evaluation Team (ET) these guidelines may have been deficient in not adequately emphasizing the unique opportunity which the SAFGRAD organization, under OAU/STRC, and its resources would possess in fostering a coordinated region-wide network of research and development programs to attack the food crop technology problem in the semi-arid zones of Africa. The reorientation of the SAFGRAD thrust which this suggests would de-emphasize, relatively, SAFGRAD's direct involvement in research and emphasize, relatively, SAFGRAD's coordinating and leadership role. A further development of this theme and proposals for its implementation are offered below. Succeeding sections of this report offer recommendations for improvement of the operations of each of the SAFGRAD elements.

4. Reorientation of the SAFGRAD Approach

Necessary as are the operational components of SAFGRAD -- centers for regional level research, ACPOs and FSU -- they do not, by themselves, constitute a regional research network. What is required, in addition, is the marshalling of all research resources in the SAFGRAD region and the strengthening of linkages between research and extension. Further, SAFGRAD's leadership and coordination activities should explicitly address the allocation of research effort, at all levels, between the short-run requirements for higher food production and the long-run necessity of increasing food production while maintaining or improving participating countries' natural resource base, the soil.

Recommendations concerning the issue of linkages between research and extension are offered in the Sections on the FSU and ACPO programs (Sections II-D and II-E), below. The work of the FSU as proposed, will assist SAFGRAD management in addressing the long-run/short-run issue.

Specific recommendations for the coordination of national and regional research efforts are:

a. Consideration must be given to the permanence of SAFGRAD. Little will be accomplished if the regional centers are disbanded and if any regional network falls apart when AID support is removed. Institution building was not mentioned in the project paper as one of SAFGRAD's purposes. Yet that purpose is implied in the very concept of the project. It should be made explicit.

b. The TAC must be revitalized and a Research Coordinator should be appointed. The basic argument for these recommendations is presented in Section II-B, below. They are mentioned here in connection with their supportive role in coordinating national with regional research.

c. Establish an information network among the regional and national research centers to facilitate the exchange of information on research results and research programs among scientists in the region. Possible elements of such a network include:

(1) An indexing and referral service covering research reports available at each center -- regional and national, the index to be published, say, bimonthly.

(2) Greater emphasis on technical material in the SAFGRAD Newsletter.

(3) Technical and material assistance to strengthen the information services of national centers.

(4) A SAFGRAD technical journal, with stringent editorial requirements, to provide a prestigious publishing outlet for national, as well as regional, scientists. Content could include farming systems research, innovative extension programs, research policy discussion, etc., as well as technical research reports.

d. Relationships between SAFGRAD, as a regional organization, and national research programs should be formalized at the institutional level. Currently, working relationships exist largely on a voluntary basis between individual regional and national scientists. Institutionalizing these relationships would help avoid problems created by the typically short tenure of individuals in their present positions.

e. These formalized agreements should be tailored to the strengths, weaknesses, and other particular circumstances of the national institution. They would cover such items as:

(1) Exchange of scientists between regional and national centers.

(2) Consultation travel for both national and regional scientists.

(3) Agreement on cooperative research programs.

(4) Integration of the conduct of regional trials into the regular research program of the national center.

(5) SAFGRAD participatory funding of cooperative programs.

(6) SAFGRAD assistance in seeking financial and technical assistance for agreed-upon national programs.

f. The effectiveness of regional cooperation in research would be enhanced with information on existing research resources in the region. A survey to obtain information on research personnel, facilities, and equipment should be undertaken. It should begin immediately and certainly be part of the design of the follow-up project.

## B. Findings and Recommendations - Management

### 1. Introduction

This section focuses on the issues as raised in the evaluation scope-of-work. Virtually all of the issues are discussed although the depth of treatment in each case reflects the importance of the issue.

The central theme that recurs is the failure to provide policy and research leadership. This is not a question of failures on the part of individuals but the failure to animate the management structures built into the project.

### 2. General Elements of SAFGRAD Management

There are three important management/administrative elements expected to be present in the project.

a. The Consultative Committee (CC) makes overall policy and is composed of 12 permanent members, representing SAFGRAD member countries, OAU/STRC, and SAFGRAD donors, and four ex-officio members who represent SAFGRAD implementing agencies. The CC was to meet not less than once each year.

The Technical Advisory Committee (TAC) is charged with the review of research work and recommendations on research priorities and direction for the Consultative Committee. The eight members are senior scientists from member countries, an OAU/STRC representative, and four representatives from the research agencies implementing the project.

b. OAU/STRC. This office, in Ouagodougou, is the single most important element for implementing and coordinating SAFGRAD objectives. The concept of having OAU act as an umbrella agency seems to be sound conceptually and effective as an operation.

From a logistical point of view the project flows smoothly through the services of OAU in arranging for housing, imports, accommodations for researchers, etc.

c. AID Project Management. The AID project officer is charged with the management of AID inputs. This has been very well effected. The project officer has also played a large role in establishing headquarters and aiding OAU with its initial negotiations and coordination efforts.

### 3. The Consultative and Technical Advisory Committees

The Consultative Committee is the primary instrument for providing high level policymaking, program guidance and overall administration. The Technical Advisory Committee is, in its turn, the high level mechanism for providing technical leadership and direction. The

functions of both these committees are clearly defined in the project paper. For each contractor there is at least some reference in the contract to the role of these committees although the description could easily bear some expansion. The primary responsibility for convening the two committees lies with OAU/STRC.

A liberal interpretation is needed in order to state that these committees have met the annual meetings requirement and it is clear that the number of meetings does not meet the spirit of the project paper which calls for annual meetings "but more frequently if deemed appropriate." It must be noted that the TAC did meet in May 1979 and did receive work plans from the Institutes. It did not, however, meet in 1980.

There is a set of issues clustered around the fact that these two committees have functioned weakly up to this time; some of these issues derive indirectly from too infrequent meetings and others concern committee functions not performed. Some of these issues are as follows:

a. The CC has a mandate to make policy and to deal with management/administrative questions and facilitate relations with "any participating party." For example, the question of relations with the Institute of the Sahel (which will be dealt with as a separate subject) could and should have been dealt with at the level of the Consultative Committee.

The TAC in its turn has a mandate to review research work plans and establish priorities and research directions. If the TAC isn't meeting regularly, then where do the priorities and directions come from?

The failure of the project to evolve beyond the research priorities set in the project paper or to truly integrate the activities of contractors is due to these two committees' inactivity.

b. It is no surprise that divergent loyalties and postures would exist with such a multiplicity of roles and participating agencies. Intramural competition cannot realistically be eliminated but the TAC and CC can provide the unifying leadership and policy required to help deal with such problems.

An example would be the bilateral negotiations between ICRISAT and IITA concerning land use at Kamboinse. This kind of allocation of resources should be handled at the committee level with the participation of all interested parties, e.g. ICRISAT, IITA, the Kamboinse station manager, AID, et al.

Would the TAC have decided to build two separate "insect houses" at Kamboinse as IITA and ICRISAT did?

c. There are four principal players in the SAFGRAD program: The ACPOs, the Farming Systems Research Unit, the Research Institutes and the various National Research Entities. Communication among these entities is a vital element in the program and the TAC and the CC are vital mechanisms for achieving this communication. This is not to say there is no communication, for there is. At present the workshops are the prime media for the exchange of data and ideas, and the professionalism of the various specialists also fosters better communication. The management and information exchanges envisaged by the project ultimately depend, however, on the two committees.

Comments: There is a clear need to implement and accelerate the functioning of the two committees. The objectives of overall high level coordination of research cannot be reached without these committees functioning in full vigor and project management can only be fully effective by the same criteria.

Meetings for the Consultative and Technical Advisory Committees are planned for this October. It is recommended that guidelines for selecting the membership of these committees be developed at these meetings. Draft statements of the roles, functions, and responsibilities of these committees and criteria for membership be prepared in advance of the meeting and their adoption be an item on the agenda. Membership should have sufficient permanence to give continuity to the work of the committees.

4. Points of Contact with AID

The AID Project Officer has played a role well beyond that which one might derive from reading the project paper. He has served not only as a manager of AID inputs but has participated actively in defining and reinforcing the OAU Coordinator's role. Additionally, he has served to provide some of the guidance which should be forthcoming from the Consultative and Technical Advisory Committees.

The link between SAFGRAD Headquarters and the AID Controller in Ouagadougou is an especially important one since, except for ACPO personal services contracts, the bulk of the project funds passes through this channel.

In general, this relationship has worked well with no significant bottlenecks being apparent. The Controller at Ouagodougou reinforced the evaluator's perception that the OAU Coordinator should be better staffed for fiscal management.

The AID Controller in Mali is the direct point of contact for the Mali ACPO who is on an AID personal services contract. When the Malien counterpart takes over the ACPO position next summer it would be appropriate, according to the Controller, Mr. Earnest Harding, to draw up an agreement with the Malien government for a grant to cover ACPO activities.

IITA and ICRISAT have cost-reimbursable contracts with AID. The IITA contract has operated without any hitches; the ICRISAT operation in Nigeria has had cash flow problems which do not, however, seem related to the AID contracting procedure.

Purdue has what is supposed to be a cost-reimbursable contract but is actually much more liberal than its nomenclature would indicate.

5. SAFGRAD Headquarters

The SAFGRAD Headquarters is located in downtown Ouagadougou in a building provided rent-free by the Government of Upper Volta. The OAU Coordinator, Mr. Akidiri, and his staff of about 15 persons as well as the AID Project Officer, Arlan McSwain, are lodged here.

In terms of physical plant the office seems to be in more than adequate shape. Copy equipment, phones, office equipment and supplies all seem to be in adequate supply and functioning.

Given the extremely important role that the AID Project Officer has played as a manager and negotiator, it is extremely fortunate that he is physically located in SAFGRAD Headquarters as opposed to an office in the Mission.

The OAU Coordinator posed some interesting staffing questions. Mr. Akidiri made the case that even as it is OAU that draws up the country agreements to cover the assignment of researchers or the agreement with Upper Volta to establish the SAFGRAD Headquarters, that it should be OAU, not AID, that draws up, signs and administers the contracts with the research institutions, i.e. IITA and ICRISAT. To do this and even to perform his present tasks, he asserts a need for a bookkeeping staff. To the extent that AID wishes to encourage project fiscal responsibility and participation by OAU this claim is probably valid.

Comments: The Headquarters operation is a surprisingly smooth running operation and is a strong plus for the SAFGRAD project.

Recommendations: That to the extent that AID envisages a continuing and expanding role for OAU and is willing to delegate fiscal responsibility to OAU, strengthening of the OAU staff in fiscal management be considered.

6. Training

Throughout the trips to various countries and sites it was reiterated by African officials that the training element of the project was an indisputable and unequivocal positive contribution. Thus, the training element of the project is well founded and seems to be well executed.

The long term training component has already provided 13 degree level participants with three more in the pipeline and three others identified as candidates. There are the usual delays assocated with getting transcripts and country selections and approvals, but nothing serious or unusual. Countries seem to differ in their ability or readiness to present qualified candidates, but this is not a problem peculiar to SAFGRAD.

The short term training is in the hands (and the contracts) of the international research institutes. Because the institutes chose to pool this training money with other such money, it has been difficult to fiscally isolate training done under SAFGRAD although it is estimated that around 40 have been trained. At present SAFGRAD relies on either AID Missions or the research institutes for the actual execution of participant selection and the associated paperwork. Thus, training data tends to wend its way slowly back to SAFGRAD Headquarters.

A conscious effort is presently being made by SAFGRAD Headquarters to gather together this information to ensure more complete documentation of the training effort.

Comments: The training element of the program has been treated seriously and competently. The TAC, once on its feet, might take an active role in the selection criteria for candidates for short term training.

7. Workshop Effectiveness

Workshops on the various food crops have been regularly held and have had broad attendance. They appear to be a valuable element in the SAFGRAD program and are an important means of information sharing.

The two most desirable improvements in the workshops would be:

a. To gain more control over the selection of participants in the workshops with an eye to eliminating administrators as participants and assuring the participation of the appropriate researchers.

b. To assure the assimilation and distribution of the workshop recommendations into all levels of the SAFGRAD organizations. Presumably the TAC could make recommendations as to how research results should be distributed.

8. Technical Communications

a. Workshops

Workshops have been held in the past two years in each of the crop sectors and have had participants from a wide selection of

SAFGRAD countries. They have been held in Kenya, Upper Volta, Senegal and Botswanna. The OAU/SAFGRAD Headquarters seems to have done a fair job in producing and distributing the workshop reports except for the lack of technical input. At present these workshops represent one of the important active mechanisms for a professional exchange of information and ideas.

However, it is not clear to the evaluator how or to what degree the workshop recommendations are distributed or acted upon outside the purview of workshop participants.

b. ACPOs

The ACPOs seem to function well administratively within their national environment and the lines of communication are in place. However, the information exchange among ACPOs is dependent on individual initiative and travel since the proposed annual meetings between ACPOs have not been taking place. Additionally, the degree of involvement of the ACPO in regional concerns is a chance result of the national situation and not (as foreseen in the project paper) a result of active SAFGRAD coordination efforts.

c. SAFGRAD Newsletter

The publication of a quarterly "SAFGRAD NEWSLETTER" is an excellent idea and its execution reflects considerable credit on the Headquarters operation. This newsletter can serve as a technical information disseminator as well as an organizational unifier.

9. Technical Information Exchange

It is the evaluator's opinion that information exchange gets a perfunctory treatment both in the project paper and in reality. While it is true that conference proceedings are published and distributed as are IITA and ICRISAT reports and ACPO reports, this is done on the basis of existing distribution lists on a one-time basis.

It is strongly suggested that a more formal system of information acquisition, storage, and retrieval would be an invaluable asset to the SAFGRAD program concept. This would seem to be a logical element of SAFGRAD's research coordinating function and would help to minimize the tendency of program parties to undertake research as if they were starting with a clean slate.

Comments: Facilitating information exchange is a central part of the SAFGRAD concept and the OAU coordinating role. The workshops and the newsletter are very creditable efforts in this direction. Ensuring the convocation of the TAC and ACPO meetings will go a long way toward fulfilling project objectives. The addition of a technical staff member to the Headquarters staff to handle research materials in a substantive way seems to be needed.

Recommendations:

a. Workshop documents and recommendations be forwarded and reacted on by an active TAC.

b. The quarterly newsletter be continued and strengthened, especially in technical content.

c. Annual meetings of ACPOs be held.

d. Consideration be given to the establishment (with budgetary support) of an information network center with staff and facilities to ensure retrieval and distribution of not only SAFGRAD documentation but pertinent information from other sources.

10. Inter-relationships between the Project and other Agencies

The general question of coordination and communications is covered elsewhere, thus narrowing the scope of this section to what seems to be a particularly irksome problem, i.e. SAFGRAD relations with the Sahel Institute.

The Sahel Institute was mentioned by both the AID Project Director and the OAU Coordinator early on in the initial briefings in Ouagadougou. It was simply stated the relations with the Institute deserved scrutiny and the problem would come up in our various site visits. It did indeed come up. Dr. Asnani, Chief of the IITA team at the Upper Volta Kamboinse research station, gave an excellent briefing on the work of the station. While discussing the regional trials he mentioned that CILSS was "resisting" SAFGRAD. He further stated that the Institute of the Sahel-INSAH wanted to do IITA-type activities.

Once again in the office of Dr. Mbodje, Station Director at Bambey, Senegal, the possibility of duplication of effort by INSAH and SAFGRAD emerged. In Mali, Mr. Panganignon Dolo expressed the same concern. Thus, one can state the "problem" was broadly perceived.

What is the "problem"? INSAH is an offshoot of "Committee International pour la Latte de la Secheresse Au Sahel" (CILSS), which is largely financed by AID and is mandated to be responsible for coordination of regional research training and information; on the other hand, because of ambiguities in the language of the supporting donors and perhaps its own desire, INSAH has gotten into research as opposed to research training, and as opposed to coordinating research. In fact, INSAH has operational research responsibilities for the AID Demographic Data Project. At the same time, according to Larry Dash of the Sahel Development Program Team, AID is trying to convince INSAH that it shouldn't be doing research but coordinating it. Nevertheless, INSAH is seeking funding for a set of regional crop variety trials which clearly overlap in spirit if not in technique with those being conducted by SAFGRAD. To go one step further, INSAH thinks such regional testing is its responsibility and not SAFGRAD's.

Further insight can be gained by reviewing the attitudes of various players toward INSAH/SAFGRAD relations:

a. Dr. Asnani, Head of the IITA Team, sees INSAH as guilty of out-and-out plagarism.

b. The high level officials of both Senegal and Mali, while not explicitly stating it, clearly give their loyalty to INSAH.

c. AID/Mali, as voiced by the Mission Director, Dave Wilson, and ADPT Leader, Larry Dash, has refused to help fund INSAH's proposed regional trials.

d. INSAH itself, according to Sidibe Ousenni (Head of Research at INSAH), is hopeful of European Fund for Development (FED) funding for its regional trials and thinks SAFGRAD should leave the Sahelian research to them.

e. SAFGRAD Headquarters -- the AID Project Officer and the OAU Coordinator -- have serious reservations about the validity of the proposed research and INSAH's present competence to perform them, but they are willing to cede the terrain to INSAH and use the SAFGRAD resources elsewhere.

If INSAH does not get funding then the problem remains on the level of a verbal turf-battle; somewhat disruptive perhaps but probably without serious effect on SAFGRAD. To the extent that INSAH is able to fund its proposed research and is able to attract researchers through either payment or loyalty the result would be more disruptive to SAFGRAD.

Efforts have been made to deal with the problem, primarily through discussions while on field trips or attending SAFGRAD workshops. In December of 1980, a meeting was held with representation from six Sahelian countries, SAFGRAD (including IITA and ICRISAT), WARDA (West African Rice Development Association), and several non-SAFGRAD ICRISAT entities. The stated purpose of the meeting was to "avoid duplication in agricultural research in the Member States belonging to both CILSS and SAFGRAD." The primary outcome of the meeting was the passing of the responsibility for the coordination to INSAH (in the Sahel, of course) and a promise to draw up cooperative agreements between INSAH and SAFGRAD and INSAH and ICRISAT. The ICRISAT agreement has been signed and the SAFGRAD agreement has not been.

The meeting in some sense accomplished little since apparently INSAH interprets "coordinating" in a much larger sense than AID or SAFGRAD. Paul Charreau (ICRISAT) said they are having lots of problems with INSAH despite the agreement.

<u>Conclusions</u>: There seem to be two primary strategies for dealing with the problem:

a. Attack the problem head-on with more meetings with INSAH in the hope of resolving it one way or the other. Given the AID position, and the existence of SAFGRAD, the outcome should be that INSAH coordinates research but does not perform it. This would imply working agreements between SAFGRAD and INSAH.

b. Wait the problem out to see if INSAH comes up with the funds. If it does then SAFGRAD should turn its sights elsewhere while searching for means to support and strengthen the INSAH research effort.

11. Summary of Management Recommendations

It is recommended:

a. That OAU/STRC exercise its authority in convening regular meetings of the Consultative and Technical Advisory Committees.

(1) That a statement of the role function and responsibility of each Committee should be prepared and its adoption be made an agenda item at the meetings scheduled for this October.

(2) That the notion of rotating membership be reexamined with an eye to maintaining a reasonable degree of continuity on the Committees.

b. That workshop documents and recommendations be acted upon by the TAC.

c. The quarterly newsletter be continued and strengthened, especially in technical content.

d. That annual meetings of ACPOs be held.

e. Develop a strategy for dealing with the Sahel Institute issues. This should probably be done with the participation of Consultative Committee.

f. That staffing at SAFGRAD be enhanced as follows:

(1) The staff of the OAU/STRC coordinator be increased by one or more persons so that fiscal matters can be professionally handled.

(2) That a coordinator of research be added to the OAU/STRC Headquarters staff to be responsible for management of all technical research matters.

g. To regularize, as has begun, the recordkeeping of trainees (especially short-term) to ensure adequate documentation.

h. That all efforts be made to retain the maximum autonomy of the OAU/STRC coordinator with respect to the home office in Lagos.

The Lagos OAU/STRC Headquarters certainly has a high level advisory role, but operational efficiency indicates that the International Coordinator in Ouagadougou should continue to be empowered to make and implement operational decisions. We use the analogy of the relationship between the president of a corporation and the chairman of its board of directors.

i. That the OAU take a more active role in pursuing support from the donor community for SAFGRAD activities.

j. That consideration be given to OAU/STRC being empowered as the contracting body for the technical assistance implementing agencies.

C. Regional Level Research

1. Regional Research Centers

a. Introduction and General Issues

The project paper specified that regional level research on the commodities of importance to the SAFGRAD region was to be carried out at four centers: Kamboinse in Upper Volta, Samaru in northern Nigeria, Bambey in Senegal, and Maradi in Niger.

These centers are, in fact, national research centers for which the governments concerned have agreed to accept regionally funded scientists to carry out research which is regional in scope. Scientists from ICRISAT and/or IITA were selected for these posts depending upon:

- The commodities of interest: ICRISAT for sorghum and millet and IITA for maize and cowpeas.

- Subject matter gaps existing in the national research complement.

(1) Funding Sources and Program Guidance

The project paper points out that much of the ICRISAT input into the regional level research component was already planned prior to the inception of SAFGRAD. It was evident from the discussions held by members of the Evaluation Team at Kamboinse, which is the major SAFGRAD regional level research center, that the UNDP funded ICRISAT team does not consider itself an integral part of the SAFGRAD project. To the extent that this is generally true for the non-AID funded inputs into the project, the issue of responsiveness to the project management's guidance could well become important. That this issue has not so far become explicit appears, in part, to relate to the fact that the planned management structures have not been fully utilized.

To some degree this issue is also relevant to the IITA team which, though AID funded, largely determines its own program. Implementation of the Evaluation Team's recommendations on revitalizing the Consultative and Technical Advisory Committees should result in clear lines of authority and program guidance.

(2) Regional Research Centers or National Research Centers with Regional Inputs

Regional level agronomic and varietal development research are essential elements of the SAFGRAD project. Choosing to carry out this activity at "regionalized" national centers has clear cost advantages:

- Lower investment costs in station development.

- Utilization of national research personnel in regionally related research.3/

This mode of operation is, however, not problem-free. Kamboinse, for example, is in fact, if not in name, a SAFGRAD regional research center. The IITA and ICRISAT teams dominate the facilities and research activity there, and SAFGRAD has made significant investments in improving the physical plant. One Voltaic official expressed concern to the Evaluation Team that they were losing control over their own research program. At Samaru the SAFGRAD ICRISAT team has not yet fully integrated itself into the station.

The establishment of one or more explicitly SAFGRAD regional research centers would entail significant investment costs but would avoid the problem of sensitivity to national pride and program goals. Establishing such centers under full SAFGRAD administration would also help resolve questions of authority and program guidance over the scientists working there.

b. Brief Description of the Constitution of the Major Centers: Kamboinse and Samaru:

(1) Kamboinse

Kamboinse is a relatively small research station located approximately 13 km. from Ouagadougou on the Kongoussi road. Previously it had been used primarily as a rice multiplication facility by the Voltaic Ministry of Research and Development which also conducted some vegetable and groundnut research. The latter is being continued on a small portion of the arable land at Kamboinse.

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3/ This is an obvious inference from the designers' specification of IITA and/or ICRISAT expertise to fill gaps in the staffs of the selected centers.

In 1976 ICRISAT selected it as a major location for their food grain research supported by UNDP and core funds. ICRISAT now has a sorghum breeder, millet breeder, production agronomist, plant pathologist, entomologist, and two economists located at Kamboinse Station. SAFGRAD recently hired and supported one soil physicist through ICRISAT at this station. ICRISAT controls most of the land at Kamboinse.

A major portion of AID funding for SAFGRAD research is at Kamboinse through the contract with IITA. Twenty hectares of low-lying land had to be cleared, ditched, drained and leveled to prepare it for field research. Construction of two office/laboratory buildings was completed along with work sheds, seed cleaning and storage units and supporting facilities have been added. SAFGRAD, through the IITA contract, supports a maize breeder who is also the Team Leader, a maize agronomist, a soil fertility agronomist working on cowpeas, and an entomologist.

IITA, with IDRC (Canada) funding, has added a cowpea breeder to the station. IDRC has also funded a cowpea storage researcher and constructed an entomology laboratory.

Under the Purdue University contract are two (originally three) FSU specialists who have offices at Kamboinse.

(2) Samaru

Through ICRISAT, SAFGRAD has a contractual agreement that includes one sorghum breeder, one entomologist, and one crops agronomist (recently resigned). These scientists have offices with Nigerian counterparts of the Institute of Agricultural Research (IAR), a large, well-established organization located adjacent to AHMADV Bello University in Samaru, northern Nigeria. The University has a large staff of agricultural scientists, and a large student body. ICRISAT has a millet breeder and plant pathologist at IAR who are not SAFGRAD supported. These scientists have all been provided research land at Samaru and at Kano, a more northernly, more typically semi-arid location. These appear to be better soils than those around Ouagadougou.

Appropriate land for field trials was allocated at Samaru and Kano for early initiation of field research this first season. These scientists did not arrive on site until February 1981. Their delayed arrival was attributed to difficulties in attaining authorization from the Nigerian Government for their participation as per the proposal IAR had agreed upon. Financial problems subsequently developed which delayed payments that were to provide for operations and the procurement of vehicles. Problems of this sort led to the very recent resignation of the agronomist who was to play a lead role in the activities of the entomologist and the sorghum breeder.

2. Review of the Work of Regional Centers

Since the major SAFGRAD support has gone to IITA activities at Kamboinse it is to be expected that results from there should be

paramount. On the basis of workshops conducted and crop reports printed and distributed, this indeed appears to be the case. Considering the late start of SAFGRAD regional research at Samaru and the low input at Bambey, we should not expect much output from them at this time.

There are concerns, however, for the nature of the data coming out of Kamboinse. The station itself, as described above, does not typify farm sites. The latter are mostly upland soils, eroded to subsoil in many instances, never have received fertilizer, never have been deep plowed, and in general are not as productive as the fields of the Kamboinse station. Thus, the breeder's "improved" varieties appear better than the "local" varieties that evolved under the low input and poor field conditions common to the small-farm condition. To date, specific agronomic conditions relating to crop production for variety trials are generally not available. This greatly limits evaluation of variety performance.

The better growing conditions at Kamboinse are advantageous for activities such as seed increase of the most promising varieties, entomology, pathology, and cultural studies that require frequent observation and careful scrutiny of limited germ plasm.

Facilities at Kamboinse lend themselves well to, and indeed are being used for, education and short term training purposes. The prime opportunities are for conducting tours of field plots during growing seasons. Some apprentice type training has also been conducted at Kamboinse.

The magnitude of SAFGRAD's crops-oriented research has overwhelmed that of its soil and water research. Poor soil conditions and insufficient water are major constraints limiting the adaptability of improved varieties coming out of the crops specialists programs.

The success of the Green Revolution, for example, is based upon acceptance of the "package". The improved variety will be advantageous only if certain specifications are met. If fertility, moisture, soil preparation and weed control are inadequate, the "improved" variety may be inferior to local varieties. Where varieties are tested on-station, the inputs for maximizing productive potentials of improved varieties are likely present. The reports of the 1980 maize and cowpeas testing throughout the semi-arid region of SAFGRAD's mandate give no specifications as to growing conditions. The generalized instruction to participants in these trials is that they should employ the "recommended practices" for the area in which the trials are grown. The small farmer, who by SAFGRAD mandate is to be the beneficiary of these endeavors, may very likely not be able to incorporate the recommended practices in his farm system. Hopefully he will in time, with the assistance of national agricultural extension services, be able to afford the inputs that maximize the production potential of improved varieties.

At present there is a need to identify varieties of a number of crops that are best adapted to the many regional environments at the

modest practical levels of farmer input. This is not being given sufficient attention by the crops researchers who are more future-oriented toward the time when more inputs by the small farmer may be possible. Closer coordination between regional level researchers and the Farming Systems Unit would be highly beneficial in this regard.

3. Regional Cooperation in Research

Multi-country participation is most apparent in the commodity variety trials and the several workshops that have been held relating to these prioritized crops and a Farming Systems Workshop. These are first-time experiences of this sort for the SAFGRAD program, and opportunities for improvement are apparent. Participation in these workshops varied appreciably among nations, with large delegations from some (13 from Senegal at the Dakar meeting) to no representation from other nations. In the six workshops held to date, representatives were sent from 13 to 20 of the 25 SAFGRAD nations. Several international institutions and U.S. universities were represented without SAFGRAD financing unless they were invited program speakers. Registered attendants at these workshops ranged from 40 to 90 persons. Technical presentations and discussions should be upgraded and then reprinted in workshop proceedings for wide distribution. Such distribution has been grossly inadequate to date.

Enthusiasm for attending workshops has been bolstered by offering air fare and per diem for a representative from each of the 25 nations of the SAFGRAD program. Effectiveness of the workshops has been impaired by the fact that invitations, in accordance with protocol, were sent to institutional directors who did not always send the specialists who had conducted or who would be expected to execute the regional research to be discussed. The Consultative Committee and the Technical Advisory Committee could assist in this regard by devising a means to assure attendance of the appropriate persons. Workshops might also be used as an opportunity to exchange seed, including the distribution of the complete seed component of variety trials, thus assuring timely receipt of these inputs. Failure to receive seed on time for planting has been a problem in countries where transportation and communication deficiencies exist.

4. Status of Crop Improvement Efforts

a. Maize

As a consequence of dynamic leadership and strong backstopping by IITA, progress on the development of maize varieties has loomed large even in these early stages of the SAFGRAD program. One maize breeder, one maize agronomist, and a half-time entomologist are working on maize at Kamboinse. The present direction appears to be toward higher yielding maize varieties under more productive management which does not typify most small farms in the SAFGRAD region. Maize is actually produced on only a small portion of a farmer's land where

moisture conditions are apt to be ample. The direction of maize research, therefore, needs to be altered toward developing varieties that will yield more at the lower level of farmer input, or slightly higher as may be practical. The variety known as "pool 16" is being increased in the irrigated fields at Kamboinse, though data on regional yield trials don't specify if its advantage is on productive or typical sites.

b. Sorghum

Sorghum is much more widely grown throughout the semi-arid lands than is maize, but efforts to date on sorghum development by SAFGRAD are modest. The possible contribution that might be made by the transfer of Indian genotypes of sorghum to Africa remains highly controversial. The assignment of an entomologist to study stemborer in sorghum (and millet) appears questionable in view of the admission that farmers mention the occurrence of borers in about one year out of four.

Progress in development of the preferred white seeded sorghum was mentioned at ICRISAT, Kamboinse, in that E35-1 in a recent trial on fertile soil around villages produced 40% more grain than the local variety. Another genetic line, SPV-35, is favored by farmers for its short (90-day) maturity, but it will take another two years to breed out the authocyanin from the glumes that stains the white seed. It is only 1 m. tall, and farmers prefer taller sorghum, for its stems are needed in construction of walls of huts, fences, and even as fuel.

It has been noted that the taller growing local varieties have a higher rate of coleoptile elongation and therefore emerge better from deeper planting, especially where soil crusting is a problem. Plant breeders may elect to retain tall types rather than rely upon soil scientists to find ways of ameliorating soils to assure better emergence. Softening of soil surfaces would not only permit better crop emergence, but also foster better moisture infiltration, thereby enhancing plant growth and decreasing erosion, nutrient loss, lowland flooding, etc.

c. Millet

The earliest maturing of the major cereals in the SAFGRAD area, millet appears to occupy an inferior position regarding plant development progress. Indeed, it was decided that "regional millet trials should not be started before 1981 because of: i) the absence of a trials coordinator, and ii) the relatively short time available to gather material for 1980." Interest was expressed in developing millets that require less than 50 days to flower in less than 800 mm. rainfall areas. Prime interest exists in the pearl millet types (*Pennesetum americana*) in the SAFGRAD region, however, *Setaria italica* and *Elusine indica* are important in certain arid areas, and it was proposed they not be excluded from consideration in regional trials.

d. Cowpeas

Breeding is supported by IITA/IDRC plus the Government of Upper Volta at Kamboinse. Cowpea agronomics is being researched full time by an IITA/SAFGRAD agronomist at Kamboinse, and an IITA/SAFGRAD entomologist is working half-time on cowpeas and half-time on maize. This appears to be an inordinately large effort on a crop that is beset with problems that include attacks by five insects of major consequence, six plant diseases, nematodes and Striga (a parasitic weed). Resistance to one insect species has been developed into a variety, and there is experimental evidence of genetic resistance to another, but a practical pest-free crop of cowpeas appears to be far beyond the limits of the project. "As with all currently available cowpea varieties, yield losses can be 100% without insecticide treatments." Recommendations call for multiple spray applications, yet considering the small farmer, one wonders if alternatives should not be sought for this crop. Mung bean, chickpea and pigeon pea are high protein legume grains that might be substituted for cowpeas.

e. Groundnuts

Groundnuts as a food crop are not being actively researched under the auspices of SAFGRAD. It was pointed out that the labor requirement for their production for home consumption (as opposed to cash sale) is considered excessive. Bambara nut was suggested as an alternative that would fit into a similar intercropping pattern, do better at lower fertility, and maintain quality in storage longer than do groundnuts.

f. Other

Intercropping, relay, and rotation cropping suitability have not been a prominent consideration in the development of any of these crop varieties. These must therefore be second phase test parameters.

5. Recommendations

a. Non-AID Funded Inputs

Responsiveness to SAFGRAD program objectives would be enhanced if the non-AID funded inputs were brought more closely into the SAFGRAD fold. OAU/STRC, with AID support, should negotiate with the other donors and implementing agencies, notably UNDP and ICRISAT, to achieve greater SAFGRAD influence in their activities.

b. Establishment of Regional Centers

Serious consideration by AID and OAU/STRC should be given to the question of establishing a regional research center or centers under full SAFGRAD management. In effect, the center at Kamboinse is the only one fully committed to regional research. Technical leadership should continue there.

c. Regional Level Research for Small Farmers

Variety development and other agronomic research should be more closely aimed at the input levels attainable by small farmers. Doing so requires:

(1) Closer coordination between the regional researchers and the Farming System Unit.

(2) Breeding objectives be altered to seek varieties adapted to small farmers' input and management levels.

(3) Relatively more effort should be placed on agronomic and soil and water research and relatively less effort should be placed on breeding research.

(4) Protocols for regional variety and agronomic trials should specify that trials be carried out under conditions attainable by local small farmers and that reports on the results of these trials fully describe these conditions.

(5) Effectiveness of the commodity workshops would be strengthened by assuring participation by the national researchers directly responsible for the regional trials.

d. Recognition

The dynamism of IITA's efforts and the quality of the research it has carried out to date should be appropriately recognized. IITA should be seriously considered for participation in an extended SAFGRAD project.

D. Farming Systems Unit

1. Introduction

a. Purpose and Origin of the Farming Systems Unit

In the Project Paper (PP) the Farming Systems Unit (FSU) was assigned multiple and, in the sense of the resource allocation problem, possibly conflicting objectives. The FSU was to analyze small farm conditions with the view toward influencing regional level research priorities and carry out an adaptive field trials research program on readily available technologies. Regionally it was to work with the Accelerated Crop Production Officers (ACPOs) in the countries to which they were assigned in designing and carrying out field trials. The FSU workplan also called for a regional role, as time and resources permitted, in (1) developing FSR methodologies of general applicability throughout the SAFGRAD region, and (2) assisting new and on-going FSR programs in SAFGRAD countries.

A clear inference from the PP is that the FSR was added to the project as an afterthought in relationship to the other principal components. Thus coordination with ICRISAT, IITA, and the ACPO program is given prominence in the FSU scope of work, without a strong reciprocal mandate in those of the other components.

The Evaluation Team (ET) understands that the FSU was not made part of the IITA component because an administrative decision was taken by AID to include a U.S. university in the SAFGRAD project.

b. Brief History of the FSU Program

The program began in 1978 with an AID contract with Purdue University. Purdue staffing of the project was completed between January and August 1979. The three-person resident team consisted of an

Agricultural Economist/Team Leader
Agronomist
Anthropologist

The agricultural economist left the project in early 1981 and a replacement has not yet arrived.

The FSU has chosen to concentrate on village level studies and on-farm adaptive trials in Upper Volta.

Major emphasis in the early part of the FSU program was on highly detailed socio-economic surveys at the village level. These were aimed at producing data for rather sophisticated analyses which, in turn, would provide an understanding of existing farming systems. Little formal analysis of the data has been done to date due, in part, to weaknesses in the management of the data collection process and, in part, to the absence of a data processing capability.

With the departure of the agricultural economist, who was the major exponent of FSU's undertaking detailed surveys and sophisticated analyses, emphasis has shifted to the field trials program which is based on less formal analysis of the data and on the valuable experience gained in daily contacts with villagers.

The FSU believes that the major short-run constraint to increased cereals production is the labor bottleneck at seeding and weeding times. The field trials are tests of an animal traction seeder, intended to have a direct effect on the seeding labor constraint and be supportive of the rapidly spreading use of an animal traction cultivator. The team believes that the use of rock sulphate is a feasible response to a part of the long-term problem of soil fertility maintenance.

The team has so far developed only minor cooperative programs with IITA and ICRISAT. This is largely due to:

(1) FSU's concentration on sorghum and millet technologies, the dominant crops in the semi-arid zone and which are in the mandate of ICRISAT whose presence in Upper Volta is, except for the soil management specialist, outside the SAFGRAD structure.

(2) Major emphasis of the IITA and ICRISAT programs is on breeding. FSU believes that the intensive management requirements of the high yielding varieties (corn in particular) make them largely irrelevant to short-run needs on the extensively managed fields which are the largest portion of the farm and on which the bulk of the cereals are produced.

FSU's future plans are to continue the socio-economic studies, but at a much reduced level of detail, and to expand the field trials program. The ET understands that the SAFGRAD-supported soil management specialist in ICRISAT intends to begin some trials of the relationship between tillage practices and water conservation in cooperation with FSU.

The detailed analysis of the FSU program which follows should also consider the review of the Accelerated Crop Production Officer (ACPO) element of SAFGRAD, Annex E. Recommendations are given concerning improvements in, and reorientation of, the FSU operation and relationships between the FSU and the ACPOs.

2. Detailed Analysis

a. FSU: Theory and Practice

(1) Methodology

The general approach chosen by the team was that of adaptive research on productive practices readily adaptable within existing farming systems. This has meant giving up work which has as its explicit objective the identification of research priorities for the regional stations and foregoing active regional involvement with other FSR programs. Their decision was probably a wise one, given

(a) The relative inexperience of the team members in explicit FSR work;

(b) The advantage, argued by many, of grounding upstream FSR in site specific, village level work: and

(c) The headstart many other FSR workers in the SAFGRAD region have over the FSU.

The planned methodology of this approach was as follows:

(a) Delineation of Upper Volta into agro-ecological zones using secondary data;

(b) With a reconnaissance survey of those zones most typical of the semi-arid region, (1) confirm or modify the zonal delineations made from secondary data; (2) identify, for field trial confirmation, potentially useful means by which agricultural production can be increased; and (3) identify typical villages for detailed socio-economic and technical study;

(c) Carry out intensive, detailed socio-economic surveys in the study villages. The data from these surveys would be analyzed in models of consumer-producer decision making behaviour in order to increase the team's understanding of villagers' goals and objectives, technical processes, and resource constraints. This understanding would then form the basis for further field trials of possible improvements in farming systems; and

(d) Field trials of potentially productive interventions into existing farming systems. The trials program would begin at a modest level at the outset of the project and become relatively more important as the results of the socio-economic analysis became available.

There was not unanimity within the FSU on this methodology. The Team Leader, the agricultural economist, favored detailed survey work and employing the resultant data in models of household production-consumption behaviour. The anthropologist and the agronomist favored the use of rapid reconnaissance surveys to identify variables and relationships of immediate relevance to potential interventions and to provide a focus for more detailed socio-economic surveys. This would permit, and be coupled with, a larger field trials program at the outset. It would also permit a more rapid geographic expansion of the FSU's work in Upper Volta. The issue was resolved in favor of the latter point of view with the departure of the agricultural economist in early 1981.

This difference of opinion is widespread among FSR workers. The debate centers around the question as to the extent to which one should analyze existing farming systems before getting on with the task of designing and testing interventions. One school of thought favors very thorough investigations using at least moderately sophisticated techniques of data collection and analysis on the grounds that existing systems are very hard to understand and that the probability of error is rather high if one attempts to make short cuts.

The other school favors using reconnaissance work to identify an initial starting point for the design and testing work. This school maintains that (1) one can get most of the important points rapidly, particularly if an experienced FSR team is involved; (2) the depth of one's understanding about the systems will grow immensely in the course of the farm level trials; and (3) one of the purposes of the farm level trials is to identify errors which, in any event, should not be feared.

(2) FSU Experience

From the initial zone delineation and the reconnaissance survey, the team selected seven villages in three zones for intensive socio-economic study, and of them, three were selected as laboratory villages in which to concentrate field trials. (Field trials have also been carried out in three other, non-laboratory, villages.)

Samples of households were drawn in the study villages, and the intensive surveys were begun in early 1980. The team had several management problems in collecting and handling the survey data.

(a) Volume. Approximately 35 forms, some of which were very detailed, were included in the questionnaire, and the sample consisted of 15 households from each of the seven villages, or 105 in all. Completed questionnaires could not be edited properly before tabulation.

(b) Enumerator Errors. Enumerators were not thoroughly familiar with the questionnaire or adequately instructed in interview techniques.

(c) Data Processing Capacity. Mini-computer facilities and operating personnel were not sufficiently in place to permit timely formal analysis of value to the field trials program.

When computer capacity was finally available, the errors and inconsistencies in the data were revealed. The team is now engaged in salvaging what can be of the data in order to complete, so far as possible, the analysis.[4/] It was mentioned that the replacement agricultural economist might take responsibility for this work.

Analysis of the data, but less formal than was originally intended, and experience gained in frequent contact with villagers have formed the basis of the field trials program. The FSU believes that expansion of areas planted is the major short-run opportunity for increased cereals production, and it is the availability of labor at seeding and weeding time that is constraining this expansion. They also hypothesized that the application of rock phosphate would form a low-cost, potential (if not immediate) partial answer to the long-term problem of improving and maintaining soil fertility.

Tests of an animal traction seeder showed some promise of increasing yields, primarily through increased tillage at

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4/ A Purdue graduate student and her husband joined the project in early 1981 to edit, tabulate, and analyze the data. The first two tasks have been so time-consuming that a full analysis is unlikely during their tenure.

seeding time to trap moisture. Trials showed that the benefit from the use of rock phosphate appeared the second year after application due to its low solubility.

FSU also carried out some trials of a sorghum variety, developed by ICRISAT, under management conditions typically found in Voltaic villages. These tests indicated that the improved variety was not superior to the local variety under these conditions, and the results call into question the value of a breeding program whose output requires associated inputs which are not readily available.

The methods being tested by the team would allow farmers to considerably expand their acreage under cultivation through the use of animal traction. Some gains in yields per acre are possible, primarily through timely weeding, increased moisture conservation, and possibly the application of rock phosphate. Thus, the thrust of the FSU work is to identify and improve upon the extensive portion of the farmers' production system. This is rather at variance with the rest of SAFGRAD where the emphasis is upon the development of an intensive, highly productive agricultural system.

This focus of the FSU trials work raises questions about the long-term macro environmental implications. There is limited scope for area expansion in parts of Upper Volta, notably the Mossi plateau. In relatively land scarce areas, there is concern that the widespread adoption of animal traction may lead to a reduction in fallow periods with only limited efforts to maintain or improve soil fertility. Many feel this could cause permanent damage to the soil and accelerate desertification. The expansion of cultivated area through the use of animal traction is already underway in sub-Sahara Africa. The FSU team believes continued expansion is inevitable, and in their work they are attempting to make it more productive and less damaging to the soil resources. Also, the expansion in area planted via the use of animal traction may give many farmers the necessary push out of low level subsistence such that they will be in a better position to adopt other innovations which will lead them to more intensive agriculture, including maintenance of soil fertility.

FSU plans to continue the socio-economic survey work, but at a much reduced level of detail and requiring a much less sophisticated analysis than that originally planned, and to expand the field trials program. The survey work will concentrate on those aspects of decision-making which are believed to be most relevant to the identification of potential improvements in the system. Given the current and prospective composition of the team over the remaining life of this project, the experience gained by the local staff, and the relationships being developed with national institutions in Upper Volta, this appears to be the strongest program the FSU, as now conceived, could pursue.

b. Staffing

(1) Expatriate. The FSU resident expatriate staff is listed below.

| Name | Position | Joined Project | Left Project |
|---|---|---|---|
| Ram D. Singh | Team Leader/ Agricultural Economist | August 1979 | February 1981 |
| Paul Christensen | Agronomist | January 1979 | ------ |
| Richard Swanson | Anthropologist | August 1979 | ------ |

Since the departure of Dr. Singh, Dr. Christensen has served as team leader. Purdue is recruiting a replacement for the agricultural economist position. It is the ET's judgment that this person's training and experience should be in farm management.

None of the expatriate staff has had prior experience specifically in FSR programs. Dr. Swanson worked on a socio-economic study in Upper Volta before joining the project and, equally important, lived in Upper Volta for 15 years during his early youth. Dr. Christensen has gained great competence in employing the FSR approach to technological development in agriculture during his tenure with SAFGRAD. Both would be valuable members of any FSR group, and particularly of those pursuing downstream-type activities.

None of the team are full members of the Purdue Faculty and neither Christensen nor Swanson has any commitment from the University beyond the life of the project. This points to a problem which can only be mentioned since it is outside the scope of SAFGRAD to correct: there is no U.S. university, Purdue included, with institutional capability in FSR at a level permitting them to deal as equals with ongoing FSR programs in developing countries. To be sure, some universities, Purdue and Michigan State are notable examples, have a wealth of experience in economic and other social science research in Africa. But the two types of institutional capability are not synonymous.

A factor in this is that FSR does not lend itself to the production of scholarly, publishable research which is a prime feature of a university's stock-in-trade. Some universities are attempting to develop institutional capability in FSR. The University of Florida, for example, is beginning an FSR program which it views, in large part, as significant to its research and extension programs among the State's low resource farmers.

The FSU has also drawn on shorter term expatriate staff. Annie Bruyer, a French anthropologist, served as a research supervisor during the period of intensive village-level surveys. Anne Marie and Michael Callin joined the FSU in early 1981 to help edit and tabulate the intensive survey data. Mrs. Callin hopes to use the results for an M.S. thesis in agricultural economics at Purdue.

(2) Voltaic Staff. The FSU has assembled a rather impressive professional and paraprofessional local staff to serve as part of an FSR team. This group includes:

(a) Approximately four supervisors of field operations. Supervisors have B.S. level training, they live in the villages, and they oversee the survey data collection and field trials.

(b) Approximately 12 interviewers (this varies seasonally) which, generally, have secondary school or post-secondary vocational agriculture training.

(c) Approximately six technical assistants for field trials work.

(d) One computer operator.

(e) Three data clerks.

The experience these persons are gaining will be valuable to downstream FSR work in Upper Volta.

c. Training

To date there has been little formal training in the FSU program. The FSU has employed a fair number of individuals as enumerators, trials assistants and supervisors who have received considerable practical experience in FSR techniques. This is by far the most important contribution which has been made by the FSU on the training side.

Three individuals have been sent for short courses -- two to IITA to study no-tillage systems and cowpea production, respectively. Another was sent to Purdue to study computer programming. The utility of this training to the project is questionable. Certainly the FSU needs help on the computer programming side if the data from the extensive and detailed village level surveys is even to be tabulated and analyzed and to provide an analytic capability for the more "compact" survey program planned.

IITA is probably not the best place to send people for training in FSR. IITA is in the humid tropics, and the FSR work there is very different in character to that being followed by the FSU team. It would be preferable in this regard to send people to CIMMYT in Mexico or to see if some people can't be included in CIMMYT'S East African

training programs. Mike Collinson in Nairobi might be contacted on this point.

One supervisor, Sawadogo Kimsielga, will be going to Purdue for a PhD program in agricultural economics in the near future. That may be all well and good, but it is highly unlikely that he will receive much training relevant to FSR. It is also highly unlikely with that level of training that he will ever return to work in the field on FSR. Such training is very expensive, time-consuming and unnecessary as far as the project is concerned. There are other very good reasons for training more Voltaics to the PhD Level in agricultural economics, but there should be no expectation of direct impact on the project. The training programs of CIMMYT would be much more valuable in this regard and much less expensive. However, this choice is less likely to be popular among participants since no advanced degree is involved.

As discussed in the Evaluation Team's recommendations, the current work of the FSU is essentially national in orientation and should be incorporated into a national program. Efforts should then be made to systematically move Voltaics into positions of authority in such a project. At the same time the work and the positions need to be formally recognized by the civil service authority. The posts need to be formally established within the Direction de Recerche Agricole or the Regional Development Organizations. Without that there will be little hope of attracting and retaining good quality Voltaic staff. Very little has been done on this front.

d. Internal SAFGRAD Linkages

(1) Accelerated Crop Production Officers (ACPOs)[5/]

Thus far there has been no mutual working relationship between the FSU and the ACPO programs.[6/] For the 1981 season in Upper Volta, the ACPO will be assisting FSU in supervising some of its field level trials. This relationship should continue throughout SAFGRAD's remaining life, and it is consistent with the ET's specific recommendations concerning an improved role for the ACPO.

(2) Regional Research Centers

FSU's relationships with the SAFGRAD regional research centers have not been close. In particular, none of the FSU

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5/ A review of overall ACPO operations was carried out as part of the SAFGRAD evaluation. That review, along with specific recommendations for improvement, is also attached to the ET report.

6/ In none of the country level ACPO programs reviewed by the ET had there been direct working contact between the ACPO and the national FSR program.

work has had an impact on the work being carried out at the Kamboinse station. Part of the problem lies in the fact that the FSU is engaged in adaptive research and does not have as its major objective the influencing of research priorities at the regional stations. In this regard, if the FSU is to influence research priorities, its research reports must be directed to the right audience. Fellow scientists are more demanding than are extension people with regard to the rigor of the analysis. This is especially true if one is trying to work with scientists who are not fully appreciative of the role which FSR might play in determining research priorities. ICRISAT at Kamboinse, which is for the most part outside the SAFGRAD project, has a social science unit doing FSR-type work and which appears to be having an impact on the priorities of ICRISAT's regional research program.

Developing a working relationship with the ICRISAT social science unit could contribute to the FSU's communications with the regional level research scientists. The ICRISAT group is planning an FSR symposium for November, 1981 at Kamboinse which would provide an opening opportunity for doing this.

A contributing barrier to the development of coordination between FSU and regional level research is FSU's concentration on sorghum and millet, the prominent food crops throughout the semi-arid region. These crops are not in the mandate of IITA, the agency within SAFGRAD at Kamboinse.

Some work related to the regional centers is being done. The trials of an ICRISAT sorghum variety were mentioned earlier. In addition, the FSU assisted an IITA scientist with field trials of cowpea spraying.

The ET has been informed that ICRISAT's soil management specialist (who is part of the SAFGRAD program) intends to work with FSU in research on the relationship between tillage and soil moisture conservation. Tests are to begin at the Kamboinse station this season, and move onto villagers' fields next year.

e. External Linkages

External linkages of the FSU to institutions outside SAFGRAD are essential, both in its chosen mode of operation and in a regional capacity.

(1) ICRISAT/Kamboinse

Contacts with the ICRISAT FSR group have largely been through discussions on program. Overlap of program content is an issue. Although the FSU work is aimed at adaptive research, and that of ICRISAT FSR is aimed at influencing experiment station research priorities, they draw upon the same kinds of data and even work, in some cases, in nearby locales. Complementaries between the SAFGRAD FSU program and

the FSR programs attached to the international research institutes should be exploited. They should not be duplicative.

(2) National Research and Extension Programs in Upper Volta

The Voltaic national research program is largely a paper organization and has been composed largely of scientists from IRAT, the French tropical research agency, working at a station near Bobodioulasso in the southwestern portion of the country. To date there has been no cooperative work between national research and FSU.

IRAT is helping the Voltaics create a number of research-cum-demonstration centers which could be sites for cooperative work as the FSU expands out of its present geographic boundaries.

There is some cooperative work with the extension people in the ORD's (Organismes Regional de Developpement). These are multi-purpose regional (within-country) development agencies within which agricultural extension falls. The ORD concept is common in Francophone West Africa, and it was encountered under different names in Senegal and Mali.

In some of the ORD's, more or less formal arrangements were made with the Trials Officer to supervise FSU village level trials. In other cases individual extension agents have assisted.

This type of cooperative action is important to the development of an extension outlet for the adaptive research work of the FSU.

(3) USAID/Upper Volta

USAID will be participating in a large rural development project in the eastern ORD. USAID is funding a monitoring unit for the project. The project will also include an FSR-type component for which other-donor funding was planned. There is doubt as to whether or not that funding will be forthcoming, and USAID has indicated it is prepared to step in. The ET's recommendations contain specific proposals which bear on an in-country FSR program.

(4) Regional FSR Linkages

Explicit linkages to other FSR programs in the SAFGRAD area have consisted of get-acquainted visits to several, a consultation with Michael Collinson of CIMMYT/Nairobi, and the sponsorship of an FSR workshop in Dakar in early 1981. It is difficult to see how FSU could have played a more significant regional role, given the objectives it set for itself and the resources at hand. The ET's recommendations, bearing primarily on FSR work in a follow-up project to SAFGRAD, address this issue.

3. Conclusions

The position of SAFGRAD with respect to the FSU can be summarized as follows:

- The PP assigned the FSU multiple objectives without, apparently, giving it sufficient resources to implement all of them.

- AID contracted with Purdue University which, in common with all U.S. universities, did not have the specific institutional compatability FSR requires, despite having a wealth of experience in Africa.7/

- Purdue fielded a staff without direct FSR experience which decided -- wisely, under the circumstances -- to concentrate on village level FSR.

- The team's leadership decided that a thorough understanding of the Voltaic villagers' objectives, resource constraints, and technical and social processes was required before any significant adaptive research trials could get underway.

- It was decided that that understanding was to be gained through an intensive socio-economic survey process which would provide data for the estimation of the parameters of a model of villagers' consumption-production behaviour. There appears to be no evidence of such a model to guide the data collection process. The ET understands that the agricultural economist is working at the Purdue campus on an analysis of the survey data.

- Management difficulties in the collection and processing process resulted in much of the survey data being unusable.

- Salvage operations by the remaining expatriate staff are putting the FSU back on the track of carrying out adaptive research to develop improved technologies intended to integrate into existing farming systems.

- The series of decisions that were taken have prevented the FSU from serving the regional role which the overall spirit and purpose of SAFGRAD requires.

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7/ AID's alternatives may have been limited to U.S. universities. The option of going, say, to ICRISAT or IITA for implementing the FSU component may not have been open. In any case, if that option was open, the likelihood is that the FSU's focus would have been upstream -- perhaps a more appropriate focus for the FSU, given the dominance of the regional research centers in the current SAFGRAD structure.

4. Recommendations

The ET believes that a strong FSR program is essential to the linking of agronomic research and extension activities at all levels — regional and national -- throughout the SAFGRAD region. The following recommendations pertain to both the remainder of the present SAFGRAD project and the follow-up project.

a. Recommendations Bearing on the FSU Activity in the Current SAFGRAD Project

Recommendation 1. FSU should "cut its losses" with respect to the data gathered in the intensive surveys. A management decision will have to be made to select and analyze that portion of most relevance to the trials program. To mangle a metaphor, FSU's problem is not how to make a silk purse out of a sow's ear. Its problem is that of making a good sow's ear purse.

Once the analysis is made, all the data could be given to Purdue University for its disposition, presumably without SAFGRAD funding.

Recommendation 2. The SAFGRAD FSU adaptive research focus should be continued through the life of the current project, and it should be made a formal part of the Voltaic national agricultural research and extension structure. This recommendation is, essentially, a recognition of the fact that it is now a national program and not a regional one. USAID/Upper Volta is planning participation in a multi-donor project of assistance to one of the country's ORDs. It is intended that this project will have an FSR component, though possibly not USAID funded. The FSU, as now conceived, can be terminated when the in-country project begins. Local staff have received excellent experience which could make them the initial cadre of a Voltaic FSR program.

Recommendation 3. The survey program should be slimmed down to focus on those variables and relationships most relevant to the field trials program. A system to check data and perform preliminary analyses should be instituted to give a turn-around time of less than one month. This will enable the team to use survey results in concurrently monitoring field trials. In this way the survey operations and the field trials become integral parts of the farming systems research process.

Recommendation 4. FSU should use the upcoming ICRISAT-sponsored FSR symposium as a device to begin a dialogue with IITA and ICRISAT scientists on regional level research priorities.

b. Recommendations Bearing Primarily on a Follow-Up Project

Recommendation 5. The FSU should have a regional, rather than national (Voltaic), orientation. That would be the sole purpose of SAFGRAD FSR work in the follow-up project, but efforts could

begin in that direction during the remaining life of the present project if workload and finances permit.

The following are proposed as major elements of the regionally oriented FSU.

(1) Regional networking among national FSR programs, with emphasis on inter-program communications. Workshops, seminars, and exchanges of program material are examples of useful communication devices.

(2) Assist regional research centers in setting research priorities. FSR input into priority setting would come from:

(a) Syntheses of significant findings from national FSR programs.

(b) Collaboration with the FSR programs of IITA and ICRISAT.

(c) Field work by the SAFGRAD FSR staff.

(3) Expert assistance to SAFGRAD nations in

(a) Setting up national FSR programs.

(b) Identifying and designing FSR project.

(c) Establishing working relationships between national FSR programs and national agronomic research and extension agencies.

(d) Locating funds and staff for national FSR programs.

(e) Developing FSR methodologies which are low cost and which effectively utilize relatively low skill levels and keeping up to date on such developments made elsewhere. This information would be made available to FSR workers throughout the SAFGRAD region.

(f) Monitoring and evaluating FSR programs.

(g) Training expatriate and local staff. (Training should be conducted in the region and emphasize practical experience. In some cases training could be given outside the region, but only rarely would degree training be countenanced.)

(h) Advising on the management and conduct of an FSR program, including:

i. Appropriate combinations of survey and field trials activities.

ii. Selection of study sites.

iii. Selection of recommendation domains.

iv. Survey and data analysis techniques.

v. Village level agronomic trials techniques.

It is proposed that administrative arrangements for a SAFGRAD regional FSR program include splitting the region into two sub-regions: West Africa (largely Francophone) and East Af-ica (Anglophone). Travel will occupy much of the regional staff's time, and sub-regionalizing will help make the objectives more manageable.

The proposed staff level is

West Africa - three persons
East Africa - two persons

SAFGRAD should attempt to work out a cooperative arrangement with CIMMYT/Nairobi to handle the East Africa sub-region through its FSR program there. The current CIMMYT program there is only in agricultural economics.

All staff should be well-experienced in FSR so that effort is not expended in training them. Both sub-regional groups should be inter-disciplinary. Agronomy, agricultural economics, soil management, anthropology, and rural sociology are the obvious choices, but neither group should be all social science or all technical science.

Adequate funding for training, travel and short-term expertise are, obviously, essential.

Recommendation 6. ACPO operations should be integrated with national FSR programs as rapidly and to the extent possible in each country in which SAFGRAD is supplying or supporting an ACPO in order to apply a multiplier effect on the FSR extension linkage beyond the geographic scope of the FSR program. This could be accomplished most effectively by merging the ACPO component with the FSR.

The bases for this recommendation are two:

(1) SAFGRAD regional trials, which is a major responsibility of most of the ACPOs, will be more productively done if made part of the on-going research program of the national research agency. The SAFGRAD problem is not just to get the regional trials done. The problem is to forge strong links between the regional centers and the national

research agencies. Removing the ACPO from the role of intermediary is essential to that linkage.

(2) National FSR programs, being adaptive research programs for the most part, are of greater relevance to extension than to experiment station research. In no country do they cover more than a small portion of the nation's agricultural regions. The pre-extension trials work of the ACPO is ideally suited to gaining wide dispersion of the results of national FSR adaptive work.

This recommendation is aimed primarily at the follow-up project, but moves in that direction should begin within the current project, to the extent that existing ACPO contracts and bilateral agreements permit.

## E. The Accelerated Crop Production Officer (ACPO) In The SAFGRAD Project

### 1. The ACPO Mandate In the Project Paper

#### a. The ACPO's Substantive Role

In the project paper (PP) the ACPO role was seen as "an important SAFGRAD response to a critical weaknesses (sic) in crop research programs -- weaknesses in getting research results disseminated, tested, adopted, and to the farmers." (P.26.) The list of ACPO responsibilities was given in an illustrative job description as encompassing

(1) Cooperation with national researchers in planning/conducting field trials (utilizing regional, international research results) on national stations.

(2) Assistance to national researchers/extensionists with farmers' field trials of new varieties and agronomic practices in key ecological zones of the country.

(3) Cooperating with national officials in appraisals of locally conducted research, extension and production programs to identify problems and provide feedback to the researchers.

(4) Participation in conferences and on committees to the extent that doing so is in the best interests of SAFGRAD and national food crop research.

It was recognized (p.27) that "no individual could accomplish all the tasks listed" and that his specific role would be determined in the bilateral negotiations leading to the establishment of the ACPO position in each country. The list was summarized (p.27) into three broad categories of activity of which it was felt the ACPO could handle at least two:

(1) Conduct field trials and studies under various conditions to test the adaptability, deficiencies and potential of various recommended crop varieties and practices.

(2) Where varieties and packages appear technologically superior and otherwise suitable, to coordinate with national research and extension/development agencies to arrange broader national testing and demonstration.

(3) Provide a linkage to crop research and development programs elsewhere in the region to enable the participating country to benefit from and contribute to regional progress.

In other words, the ACPO was seen as having two roles: A within-country role and a country-regional role. As will be elaborated below, the within-country role lies in the research-extension continuum (with feedback) which seems to be progressing effectively in at least one country (Mali). The country-regional role appears in practice to have resulted in some of the ACPOs becoming an arm of the international research agencies (ICRISAT and IITA) without there being the cooperative relationship implied in the PP.

b. Administrative Arrangements

Three features of the ACPO's administrative arrangement are significant (p.27):

(1) The national ACPO is a salaried civil servant of his government. In the one case observed (Senegal) SAFGRAD material support is provided through a reimbursing grant to his experiment station. The expatriate ACPO receives material support through his AID contract. The implications these differing financial arrangements have for the ability of the ACPO to develop his own program should be examined closely as expatriates are replaced by nationals.

(2) The ACPO is to be integrated into the national research and development (extension) program under the national research director in order that he be responsive to national needs and be able to influence national program directions.

(3) The ACPO is be permitted to respond to regional guidance in order to enhance regional coordination of research.

Items (2) and (3) appear to carry an inherent conflict relating to the question of authority over the ACPO's work. The resolution of the conflict, insofar as it has surfaced in each case, will be discussed below.

2. The ACPO In Operation

As shown in the discussion below, ACPOs have made a variety of accommodations of the mandate given them in the PP to the institutions and resources existing in the countries to which they are assigned.

a. Senegal

The ACPO in Senegal is a Senegalese national, Mr. Monkeur Fall. Mr. Fall is an Ingeneur Agronome with his university training at Louvain in Belgium. He has been associated with the National Agronomic Research Center at Bambey since 1977 and has been the ACPO since 1980. Mr. Fall has three activities for which he is responsible:

(1) SAFGRAD regional trials of materials emanating from IITA/ICRISAT.

(2) Pre-extension trials of varieties technologies from the Bambey station on farmers' fields.8/

(3) Station research on crop rotation and fertilization, an on-going project for which he was responsible prior to becoming an ACPO.

The pre-extension trials, as a linkage between the research station and the extension establishment, have a precedent in Senegal so that the ACPO role is well-accepted. Mr. Fall is Coordinator of the Committee (Cellule de Liaison) formed of researchers and extension personnel which sets research priorities based upon problems important to the region. This is the only formal research-extension linkage extant in Senegal, though others are being planned.

There is some dissatisfaction in Senegal with the manner in which SAFGRAD regional trials are carried out. According to the Station Director, IITA/ICRISAT personnel bypass the institutional structure in distributing materials for regional testing, apparently preferring to deal on a researcher-to-researcher basis. Mr. Fall's place in this is not totally clear. The regional materials were received too late last year (his first as ACPO) to be planted. The "regional" trial he conducted was one of his own design.

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8/ In general, pre-extension trials are tests, carried out in the physical environment of farmers' fields, of varieties and technologies which have shown promise at experiment stations. These tests need not be exclusively agronomic. Two of the ACPOs contacted are also supervising consumer acceptance tests of new varieties. Varieties and technologies proven acceptable in pre-extension trials are advanced for incorporation into extension programs. Those not acceptable are rejected or returned to the experiment station for further refinement. The concept of pre-extension is a familiar one in Francophone West Africa.

At any rate, regional trials are not now an integral part of the Bambey Station's program. They appear to be just something the ACPO does for SAFGRAD.

It would seem that more productive regional research could be established if official channels were used to develop institutional cooperation. Also contributing to this would be the removal of SAFGRAD regional trial responsibility from the ACPO and making it an integral part of the station's research program.

The latter move would free the ACPO to spend more time expanding the area in which pre-extension trials can be carried out and in further developing his linkages with extension. At this early stage, these linkages are critical.

The ACPO's contacts with farming systems research (FSR) work in Senegal, carried out in Unite's Experimentale are minimal. FSR work covers about one-quarter of the country, largely in the South, and, we were informed, it has had little impact on national research and extension programs in the 13 years since it got underway.

b. Mali

The Mali ACPO is an expatriate, Jerry Johnson. Mr. Johnson has an MS degree in agronomy from the University of California at Davis and has been under AID contract as an ACPO since the SAFGRAD project's inception in 1978. He had previous Peace Corps experience in Benin.

Mr. Johnson's program is exclusively one of pre-extension trials, and in that he has proven very effective. This is undoubtedly supported by an apparently well organized extension system in the regional (within-country) development agencies, a limited but purpose-oriented research establishment, and an appreciation by the Malians of the importance of the linkage between the two.

Pre-extension trials are carried out on farmers' fields, with material inputs provided by the ACPO and based on national research results. General supervision is done by the ACPO or one of his staff. (The Malian counterpart to Mr. Johnson is at Texas A&M on an MS program and will return next year.) Work is done by the cooperating farmer under the specific supervision of the extension agent. Each trial is based on written instructions and the ACPO assures himself of the thorough understanding of these instructions by the agent and the farmer before the trial begins.

Mr. Johnson has been working with the regional development agencies to establish pre-extension teams in each. Once these are formed, the ACPO will have relatively less direct involvement in field trials and relatively greater involvement in coordinating the work of the pre-extension teams.

FSR work in Mali is of relatively recent origin and confined to a small region in the southeast portion of Mali. Work began with a Dutch team in 1976 or 1977. A Production Systems Research Division was formed in 1979, and the FSR field team now consists of 14 persons of whom four are expatriates. Their site is near that of the Dutch group which is still in operation.

Tentative plans are being made to expand the work to other regions, with the present team as a nucleus for that expansion. The Malians, however, appear to be cautious, citing high cost and personnel requirements.

c. Upper Volta

The ACPO in Upper Volta, Cors Korteweg, is an expatriate under AID contract. He has served in that capacity since 1978 and was previously with an FAO project in the southern part of the country. He has an advanced degree in tropical agriculture from the Royal Tropical Institute in the Netherlands.

The three years of trials which Mr. Korteweg has conducted have all been SAFGRAD regional trials on results coming from IITA and ICRISAT in Upper Volta. These were carried out both on farmers' fields and with rural schools. In the later years, the rural schools have been used more than have cooperating farmers. Extension agents have been used to assist with farmer field trials.

A national research structure in Upper Volta appears to exist only on paper. Active research at the national centers is dominated by expatriate organizations: IRAT (French), IITA, and ICRISAT. There are no locally produced research results on which a pre-extension program can be based. The ACPO devises his own annual work plan -- for SAFGRAD regional trials, and his nominal supervisor in the Research Directorate can do little more than agree to it.

The extension structure is almost as weak. Though Mr. Korteweg receives some assistance from extension agents in carrying out SAFGRAD regional trials, formal mechanisms for pre-extension work appear to exist only on organization charts. Lack of funds has been cited for failure to develop these structures.

As part of his 1981 program, Mr. Korteweg is assisting the FSU in supervising some of its village level trials. In the Upper Volta situation, this development is noteworthy in that it:

(1) Associates the ACPO with research on problems more specifically related to national issues than do the SAFGRAD regional trials.

(2) Provides an opportunity for the ACPO to become familiar with the objectives and methodologies of farming systems research.

d. Cameroon[9/]

The ACPO in Cameroon, Owen Gwathmey, is an expatriate under AID contract. He has been in the ACPO position since the 1979 season. He has a national counterpart in the research system of Cameroon.

Mr. Gwathmey has made his work a rather imaginative blend of involvement in the SAFGRAD regional trials program and carrying out a pre-extension activity. The SAFGRAD commodity varieties and technologies with which he is working are products of ICRISAT and IITA as well as other SAFGRAD countries. From the results of his SAFGRAD regional trials, which apparently are carried out on-station, he selects promising varieties for advancement to further tests. The advanced tests are carried out both on and off-station. The most promising varieties from the regional trials and those showing up well in the advanced trials are used in pre-extension trials -- all off-station. Consumer acceptance tests of sorghum and millet are also carried out.

Linkages to extension or to extension-like institutions are being developed. Extension agencies are assisting in managing SAFGRAD regional and the pre-extension trials. Young Farmer Training Centers are assisting with the advanced trials.

In his report, Mr. Gwathmey notes the need for training of his cooperating personnel to improve the quality of trials work. He also makes explicit recognition of the problem of allocating ACPO resources between regional and country level responsibilities and expressed his intention of curtailing the former set of activities in favor of the latter. His report also contains suggestions for specific administrative, logistical, and technical improvements in the SAFGRAD regional trials program.

3. Recommendations For Improving the ACPO Role in SAFGRAD

The role of each ACPO in the SAFGRAD project has been based on an accommodation between the mandate presented in the PP and the constraints and opportunities presented by the institutions and resources found in each SAFGRAD country. Recommendations for improving the ACPO role are also bounded by these latter considerations and, therefore, may not be fully implementable in all cases.

Two issues in the ACPO operation are paramount:

- SAFGRAD regional versus national responsibilities.

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9/ No one from the Evaluation Team visited Cameroon. The ACPO was contacted in Ouagadougou during his short visit to Upper Volta. This discussion is based upon that visit and on his written report.

- Integration of the ACPO's national work into a farming systems research program.

a. SAFGRAD Regional versus National Responsibilities

The ACPO's regional responsibilities for SAFGRAD have been, in the cases reviewed, a responsibility for the conduct of SAFGRAD regional trials. It is recommended that this responsibility be taken from him and given over to the national research program. Formal agreements between SAFGRAD and the national research institution should be used.

This recommendation is based on two arguments:

- Liaison between SAFGRAD regional research and national programs should be strengthened. More formal modes of cooperation on the regional trials than the researcher-to-researcher arrangements which now exist would assist in strengthening regional-national cooperation.

- At the ACPO level of the SAFGRAD project, his role in strengthening research-extension linkages is paramount in furthering the objective of increased production by farmers. His time and material resources which are allocated to SAFGRAD regional trials are not available to build up necessary bonds between research and extension.

b. Integration of ACPO Operations with Farming Systems Research

Idealized national research and extension programs are based on an understanding of the interaction of farmers' goals and objectives, technical processes, and resource constraints. A farming systems research (FSR) program is a mechanism aimed at gaining that understanding and is particularly valuable in developing countries in which research and extension resources are severely limited.

Analysis and recommendations concerning the SAFGRAD Farming Systems Unit (FSU) are covered elsewhere in this report. In general, they are aimed at providing a mechanism to assist national FSR programs and to make FSR more relevant to on-going research and extension.

In regard to the ACPO, it is recommended that a SAFGRAD objective be the integration of ACPO operations into national FSR programs. In this capacity the ACPO would provide the "downstream" linkage between the FSR and extension through his pre-extension trials work. He could, as well, participate in "upstream" linkages between FSR and experiment station research.

The desirability of the FSR-ACPO linkage seems self-evident. It provides a highly useful union between the SAFGRAD element charged with moving new technologies toward adoption and a valuable mechanism for identifying research and extension opportunities.

The rapidity with which the ACPO can be integrated into the national FSR program will differ in each case. Three generalizations appear possible:

(1) There must be both an ACPO and an FSR program in the country.

(2) The better a national research establishment employs an FSR program, the more readily will SAFGRAD objectives be obtained by an FSR-ACPO liaison.

(3) In no country should an established ACPO role between existing research and extension (i.e., apart from FSR) be abandoned.

Some observations on particular situations are pertinent.

(1) Upper Volta. In Upper Volta two conditions are conducive to an early association:

(a) There is little or no active national research program generating materials and technologies for pre-extension trials.

(b) There is an active FSR program which has identified opportunities for pre-extension trials.

Since it is recommended that responsibility for SAFGRAD regional trials be taken from all ACPOs, alternative means for carrying these out in Upper Volta will have to be found.

To the extent that SAFGRAD is responsible for national participation in the regional trials program, the Voltaic Agricultural Research Directorate should be assisted (probably best by the ACPO), in building that capacity.

A problem for the early ACPO-FSR linkage is the likely haitus in FSR operations which will occur between the time the SAFGRAD FSU ceases its in-country focus and the bilateral USAID project gets underway.

(2) Mali. In Mali an ACPO-FSR association could begin almost immediately. The pre-extension program between the agricultural research institution and the extension divisions of the regional development agencies is well-established. Further efforts are required to complete the formation of the pre-extension teams in the development agencies.

The FSR program is well underway, though it is still confined to a small area of the country. Part of the ACPO's time

and resources should be spent in developing a pre-extension program out of the FSR program, with an increasing share being devoted as the FSR program expands.

(3) Senegal. Since Senegal has a long established FSR program in its Unite Experimentale, it would seem that an early association is both desirable and feasible. Two things can, however, inhibit the rapid development of an effective ACPO-FSR integration:

(a) The ACPO is new in his role and several seasons will be required before the Cellule de Liaison, of which he is Coordinator, matures.

(b) The ACPO is under the administrative and functional control of the Bambey Station Director. The research station system in Senegal is being reorganized, giving each one independent research responsibility for its hinterland. The FSR program is not now in the Bambey region.

SAFGRAD could renegotiate the conditions of the ACPO's support in Senegal, but this seems inappropriate this early in the life of the Senegal ACPO program. Alternatively, responsibility for the current ACPO's support could be transferred to USAID/Senegal under the umbrella of the bilateral project which is supporting the Cellule de Liaison. A new ACPO could then be assigned to Senegal to work with the Unites Experimentale.

(4) Cameroon. The ACPO in Cameroon appears to be still heavily engaged in developing a viable research-extension relationship. An FSR project in Cameroon is just now beginning. Modest ACPO resources could profitably be devoted to developing a research-FSR-extension linkage.

ANNEX A

# ORIENTATION AND REORIENTATION OF THE SAFGRAD PROJECT[10/]

Leopold Fakambi

## I. THE STATE OF AGRONOMIC RESEARCH IN AFRICA SOUTH OF THE SAHARA BEFORE THE SAFGRAD PROJECT

Before independence, the main colonial powers established in the sub-Saharan countries an agronomic research structure with the following principal features:

A. A very clear orientation towards the development of the production of raw materials meant for their industries to make up for insufficiencies in their own agriculture, and this was often detrimental to the production of local food crops.

B. A highly efficient research structure linked to the following four factors:

1. A regional orientation of research, organized among groups of colonized countries without consideration of political boundaries. This made it possible to tackle agronomic problems in terms of ecological zones.

2. The orientation, coordination, control and logistic support (material and human means, supporting laboratories) of this research handled by a sole center based in the metropolitan area.

3. Specialization by groups of crops which contributed to the efficiency of this research through narrowing fields of investigation.

4. Strong integration of these research structures into the private companies charged with the organization of production and marketing. Because of this, there was never any distinction between research and development of production of the cash crops. It is necessary to emphasize that this integration of research and production offered the conditions for self-financing of the research on cash crops.

To sum up, one can say that the organization of agronomic research in Africa during the colonial period was open to criticism for its focus on cash crops, but one should at the same time recognize that its efficiency was beyond question.

The nationalization of these colonial research structures compelled each newly independent country to mobilize its meager resources to

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10/ Original in French.

organize and undertake its own agronomic research. These countries have been successful only in the exploitation of colonial research attainments in respect to cash crops without being able to significantly modify priorities in favor of food crops or maintain regional cooperation. It was only after food crises, notably the one associated with the 1972-1974 drought in the Sahel, that self-sufficiency in food became a priority in development plans.

Third World countries in general, and African countries south of the Sahara in particular, must, with assistance from international organizations and technologically advanced countries, solve the following problems:

A. Development of food crop research.

B. Recreation of some of the conditions that fostered cash crop research during the colonial period, namely:

1. Organization of research in terms of ecological zones within the framework of a policy of regional cooperation in order to promote the pooling of national resources.

2. Ensuring the rapid transfer of research results to producers.

3. Facilitating access to production inputs and ensuring marketing outlets at a profitable price for farmers.

The creation of international research institutes, such as IITA and ICRISAT, fills the need to develop food crop research on a regional basis. These international institutes, organized on the basis of ecological zones, have responsibility for agronomic research at a scope which exceeds the particular preoccupations of the countries concerned.

These institutes, however, lack the means to freely communicate with national research centers or to ensure the direct transfer of the results of their research to farmers in their ecological zone as the colonial agronomic research structures were able to do.

The signing of bilateral cooperation agreements with certain countries and the establishment of informal relations between researchers from these international institutes and their counterparts at the national reserach centers are a first approach towards the solution of the problems of communication and the distribution of research results.

It is a matter of enhancing the research undertaken by these institutes through the distribution of results to the countries concerned.

## II. THE SAFGRAD PROJECT

The SAFGRAD project represents an opportunity to recreate in the semi-arid zone of sub-Saharan Africa a regional communications network

on a voluntary basis and with the assistance of donor countries and international organizations.

The elements of this network are shown in the following diagram.

Regional Level: (Ecological Zone) — INTERNATIONAL INSTITUTES (ICRISAT - IITA)

Sub-Regional Level: (Ecological Sub-Zone) — NATIONAL RESEARCH CENTERS WITH REGIONAL ORIENTATION

National Level: — NATIONAL RESEARCH CENTERS Farming Systems Research

Uniform Variety Trials Unit — Pre-Extension Unit

A C P O

Pre- and Extension Relay Unit

RURAL DEVELOPMENT ORGANIZATIONS

Village Level: — PRODUCTION UNITS

Experimental Unit — Farming Systems Unit

REGIONAL RESEARCH NETWORK FOR FOOD

CROPS IN SUB-SAHARAN AFRICA

Certain elements of this network are already in place, namely: international research institutes, national research centers and ORDs.11/ The SAFGRAD Project will have to consolidate the existing elements and to call for and to participate in the creation of the missing links in this chain, namely:

- regionally oriented national centers;

- units for multilocational trials, farming systems, and pre-extension trials;

- posting at these centers of a liaison agent (ACPO) between the research center, the extension service (rural development organization) and the village production unit; and

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11/ Regional Development Organizations are sub-national, multi-purpose development agencies in the Francophone Countries of West Africa, whose responsibilities include marketing of inputs and products, rural roads, agricultural extension, etc.

- posting of a liaison agent between research and production at the ORDs. (This agent exists in some ORDs and handles on-farm trials. CARDER in Benin is an example.)

## III. FIELD SITUATION

### A. Senegal

A long presence of the French has made it possible to develop an agronomic research structure which has kept a good measure of its human and material potential after independence. Most particularly, the CNRA[12/] in Bambey which is a regionally oriented research center created by IRAT/France remains the principal research link in terms of food crops.

Just as elsewhere, this research, which is essentially carried out at the station, is relatively recent (less than 25 years for most of the French-speaking African countries) and is analytical and disciplinary in nature. This explains its relative failure as far as the incorporation of results into rural development programs are concerned.

Some reflections on the question: how do you pass on research results to the target environment? Since 1968 the solution has been Unite Experimentale (UE) which are defined as "a laboratory, a hinge structure, a privileged dialogue, a link between research and development."

In spite of the fact that the number of experimental units (UE) actually set up is very limited (two in 1969), research officials at ISRA[13/] do not seem to have changed the option till this day.

It is therefore on this basis that the SAFGRAD project, which has just gotten underway with the appointment of a Senegalese researcher of the Bambey CNRA as ACPO, should be evaluated.

If one of the principal objectives of the SAFGRAD Project is to "provide aid so that the various efforts made within the ecological zone become mutually supportive instead of there being a competition or duplication," we must envisage the establishment of a link between the SAFGRAD/ACPO and the UE/ISRA just as we have been asked to look at the link that exists at present between the ACPOs and the FSU/SAFGRAD Ouagadougou. Indeed, we are convinced that the UE/ISRA and the FSU/SAFGRAD are two approaches to the same problem.

It can readily be seen that the ACPO occupies within the CNRA/Bambey a post which predisposes him to assume functions assigned to him in the project.

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12/ Centre Nationale de Recherche Agronomique.

13/ Institut Senegalais de Recherche Agronomique.

In fact, even though there exists a liaison agent between research and development in all the research centers at the level of the agricultural experiment unit, it is the CNRA/Bambey (the most important Senegalese cente ) that assumes the responsibility for organizing the annual meeting of officials of multi-locational trials. That is an occasion for the ACPO to direct and coordinate these trials at the national level.

Concerning the liaison of the ACPO with the Rural Development Organizations, the signing of an agreement between ISRA and an ORD under the auspices of the USAID/Senegal, which text organizes the pre-extension trials and defines the obligations of each research and development party, is a happy initiative to be pursued and generalized.

The major problem that we found during this evaluation mission to Senegal is in connection with the organization and financing of regional trials. We shall deal with this problem in our recommendations.

B. The Situation in Mali

The SAFGRAD project in Mali was started by a very dynamic ACPO having the necessary financial support for the pre-extension tests.

There is a training program of counterparts from the pre-extension unit, thus making it possible to envisage a continuity of this action.

In the eventuality of a replacement of the expatriate ACPO by a Malian, the question of financing for him by the local USAID could come up.

We observed in Mali that there is a very good coordination between the activities of the ACPO and the ORD extension services.

## IV. SHOULD THE OBJECTIVES OF THE SAFGRAD PROJECT BE REDEFINED?

Before tackling the question concerning the evaluation of the SAFGRAD Project, it seems to us that it is of primary importance to redefine the objectives of this Project.

If we agree on the fact that self-sufficiency in food has become a priority objective in all the Sahelian countries, the contribution of the SAFGRAD Project towards the realization of this objective through research and development of food crops implies the following side objectives:

A. Development of research on food crops (cereals and legumes).

B. Strengthening the links between the agricultural research and extension units with a view to ensuring a rapid transfer of the necessary innovations to increase production at the farmer level.

Actions envisaged for the development of research are pertinent for they are the same as those that assured the development of research on cash crops during the colonial period: organization of a communication network from International Institutes to National Research Centers and creating, if necessary, the missing links in this chain (e.g., regionally oriented national research centers).

This network should make it easier to pool resources, thus avoiding competition and duplication, and strengthening the material and human potential of the national centers (training, exchange of vegetal material, technical and scientific support, etc.). It means organizing, under the umbrella of the OAU, agronomic research on the basis of ecological zones and eliminating the hindrances of political barriers. Regional variety trials and workshops are an important component of this regional cooperation policy.

Insufficiencies noted on the field in the operation of this communication network are understandable, but under no circumstances can they make us doubt the need to organize such a network.

We should first of all note that this network currently functions on a voluntary basis, contrary to the situation that prevailed under the colonial period. Countries and researchers cannot be forced to participate; they can only be invited to join.

Here, therefore, appears one of the insufficiences noted in the design of the project: the goodwill and good relations of people are not sufficient. Links between researchers on the one hand and Research Institutes and Centers on the other hand should be systematic and institutionalized at the national, regional and international levels in the form of conventions, agreements, etc. Discussions on the harmonization of structures should begin right now so that a direct dialogue between appropriate counterparts can take place.

In the same vein, the organization of regional trials is still at the experimental stage and efforts should get underway to standardize protocols as soon as possible so that the results of these trials can be used effectively. It would be equally necessary to envisage, as of now, a reinforcement of the Coordination Office through the creation of a post of Director of Research to ensure the programming and use of results from regional trials and workshops.

Concerning the strengthening of agricultural research and development links, the debate remains open, and it is probably in this field that the SAFGRAD Project could make an original contribution to the development of food crop production.

Nobody disputes the fact that it is very difficult for results obtained at the station to be passed on to the extension service. This is partly explained by the fact that research at the station is generally discipline-oriented rather than holistic, particularly initially. Eventually, the availability of genetically improved seed, manure formulae,

improved cultural techniques, equipment, etc. must be integrated in formulating appropriate recommendations.

The incorporation of these innovations into the traditional production systems should be the object of research to be conducted full scale in the rural environment as part of a permanent dialogue between researchers, development agents and farmers.

The need for this research on production systems which also conditions the success of extension actions has generally not been clearly perceived.

There have been multiple approaches towards the solution of the problem posed by the research-development link. Before independence, there were already in the research structure opportunities for on-farm trials. Today in certain regional development organizations (in Benin, for example) one can still find accompanying research engineer posts.

As of 1968, Senegal with technical assistance from IRAT/France set up, under the authority of the CNRA/Bambey, two experimental units for research on production systems.

In September 1979, a Research Division on Production Systems was created within the IER 14/ in Mali following studies started in May 1977. Here, we should note that this Division is at the same level as agronomic research itself in the organizational chart of IER.

Other countries tackle research on production systems in a less holistic manner. One often sees socio-economic studies in rural areas for rural development projects, and what is remarkable is that the multi-locational trials and pre-extension tests remain a permanent preoccupation of all research and rural development organization officials. It is that insufficiency of material and human means that limit actions in this field.

By putting ACPOs at the disposal of certain countries, with the financial means to make multi-locational trials and pre-extension tests, the SAFGRAD Project fills a real need. It is therefore not surprising that this Project is well accepted in the countries we visited. We do, however, have reservations on this ready acceptance.

Officials we met with at all levels seemed to limit the SAFGRAD Project to pre-extension tests as in Mali and to SAFGRAD multi-locational trials. Thus, the mandatory link that should exist between ACPO activities and the national research on production systems is not seen.

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4/ Institut d'Economie Rurale (roughly comparable to SEA in USDA but including ERS).

Finally, the SAFGRAD Project is often considered as an "attachment" to the national research structure like all the other projects under implementation in the country, and this raises the problem of effective integration of SAFGRAD activities into the national program at the end of the external financial assistance.

It is for this reason that we recommend that the SAFGRAD Coordination Office undertake intense and sustained actions in SAFGRAD member countries, most particularly to aim at research and agricultural development officials of these countries and of international institutes involved in this Project for an effective integration of the SAFGRAD spirit in people's minds.

This means the organization of a regional communication chain to guard against "balkanizing" agronomic research and the creation of conditions for a permanent dialogue between researchers, development agents and farmers.

## V. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are drawn from the foregoing observations concerning the objectives of the SAFGRAD Project:

### A. The Strategic Position of SAFGRAD

JP 31 SAFGRAD should not be mistaken for an agronomic research institution. It is an organ of the OAU charged with the execution of a regional policy, namely, the mobilization of available resources with respect to agronomic research at all levels (national, regional and international) for a priority objective: self-sufficiency in food in the semi-arid countries through the development of food crops.

At present, considerable means have been engaged at the level of international institutes and national research centers (in Africa) for the research and development of food crops. At the same time, the food situation in the countries concerned is deteriorating. This makes us doubt the efficiency of results obtained by these national and international research institutes.

Food production cannot be increased simply by launching new research programs. It is not the recruitment of new researchers (often without experience in Africa) nor the transfer of a team of researchers from IITA or ICRISAT to Kamboinse or Samaru to work under the cover of SAFGRAD that will increase the efficiency of these new research programs and guarantee a rapid transfer of technological innovations to farmers in the region. If these researchers can perform this miracle under SAFGRAD, they should be able to do it in their home institutes.

For JP 31 SAFGRAD it is not a matter of doubling international institutes and national research centers, but to create the necessary conditions under which programs being implemented could be integrated

and enhance the utilization of results already obtained by these institutions.

This integration supposes the organization and operation of a communication network. Free movement of researchers, improved vegetal material, and research results in the semi-arid areas on OAU/SAFGRAD passport is already a notable contribution by JP 31 SAFGRAD.

To systematize and institutionalize these exchanges and communications, the SAFGRAD Project should encourage and guarantee the signing of agreements and protocols between national research centers and international research institutes. These texts which define without prior constraint the fields of cooperation and the means of exchange accepted by the common accord of the signitaries make it possible to maintain the SAFGRAD communication network despite the instability caused by too great a mobility of the researchers and officials of these institutions.

It is not necessary for JP SAFGRAD to assume all the financial responsibility of these cooperation agreements. It can only pledge to help the two institutions concerned to seek funds and the necessary collaboration.

Strengthening the research potential of national research centers is partly realized by the establishment of links between these centers and the international research institutions.

JP 31 SAFGRAD can also intervene directly in strengthening this potential through the training program of researchers and putting at their disposal a documentation service organized on a regional basis.

The organization of workshops and financing of research missions are other means to develop the SAFGRAD communication network.

Concerning the extension of research results, it is increasingly evident that the transfer of technological innovations should equally be looked into.

One could ask oneself what is the superiority of a millet variety developed by SAFGRAD research at Kamboinse or Samaru over an improved millet obtained by an ICRISAT researcher.

We are convinced that it is only in the field of research on farming systems that JP 31 SAFGRAD can make direct and original contributions to research and development of food crops.

Research on production systems to create the conditions for a rapid transfer of technological innovations can only be conceived on a national basis.

By contributing to the development of national farming systems programs, JP 31 SAFGRAD will be supplying ACPOs and extension agents with the means of action. One may already consider the FSU/SAFGRAD program at Kamboinse as the first SAFGRAD element of a research network on production systems.

In this new orientation of JP 31 SAFGRAD, it is evident that the Coordination Office should consequently be strengthened both in personnel and in operational funds.

B. Specific Items

1. General Policy, Planning and Determining Research Priorities

Structures meant for this are not yet operational. TAC has met just once and there has not been any CC meeting yet. It is therefore up to the Coordination Office in Ouagadougou to assume this responsibility through officials of research programs underway, and on the basis of the various recommendations issuing from workshops.

2. Program Execution

The Kamboinse station is the center of initiation and execution of regional programs: regional trials are organized by the IITA Team Leader.

The FSU has been operating for almost three years at Kamboinse but it doesn't have a regional orientation as originally planned.

3. Distribution of Research Results

At present, diffusion of research results is only through regional and pre-extension trials. This is done through ACPO reports, papers presented at workshops, and reports presented by the IITA Team Leader at Kamboinse. The JP 31 SAFGRAD Newsletter now makes minor contributions to the diffusion of research results. This element should be strengthened.

Some ACPOs have mentioned that they would like to have comments on their reports.

In addition to the creation of a post of Director of Research, it appears necessary to set up Editorial Committees.

4. Relations Between Regional and National Research Centers

These relations are limited to (1) regional trials, (2) exchange of vegetal material, (3) protocols, and (4) results of trials.

We recommend that the Coordination Office take charge of the organization of links between researchers on the one hand and research centers on the other hand on the basis of conventions and agreements.

5. The Multi-Locational Trials Fulfill the First Objective

The improved varieties developed in the regionally oriented research centers are put at the disposal of national centers for tests in their different ecological zones. These behavioral and adaptation tests offer national centers the opportunity to increase the scope of their available varieties.

With regard to the feedback of problems of the farmer on the definition of research objectives on the national then regional level, this can only exist under the conditions of a veritable dialogue between researcher, development agent and farmer, which is generally not the case. The development of national farming systems programs would be necessary to achieve this objective.

6. ACPOs in the Current State of the Project

ACPOs, and more particularly USAID financed ACPOs, do effectively play the role of bridging the gap between research and development agents charged with extension. We had the occasion to observe this in Mali especially.

However, the link between the ACPO and the national researchers on the one hand, and much less his liaison with researchers of the regional center, does not allow for positive feedback for the reevaluation of national and regional research objectives.

CLASSIFICATION

# PROJECT EVALUATION SUMMARY (PES) — PART I

Report Symbol U-44

| 1. PROJECT TITLE | 2. PROJECT NUMBER | 3. MISSION/AID/W OFFICE |
|---|---|---|
| Semi-Arid Food Grain Research and Development (SAFGRAD) | 698-0393 | USAID/Upper Volta |

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) 686-83-

☐ REGULAR EVALUATION ☒ SPECIAL EVALUATION

| 5. KEY PROJECT IMPLEMENTATION DATES | | | 6. ESTIMATED PROJECT FUNDING | 7. PERIOD COVERED BY EVALUATION |
|---|---|---|---|---|
| A. First PRO-AG or Equivalent FY 77 | B. Final Obligation Expected FY 83 | C. Final Input Delivery FY 84 | A. Total $ 21,300,000<br>B. U.S. $ 16,475,000 | From (month/yr.) 5/77<br>To (month/yr.) 6/81<br>Date of Evaluation Review 3/83 |

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

| A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.) | B. NAME OF OFFICER RESPONSIBLE FOR ACTION | C. DATE ACTION TO BE COMPLETED |
|---|---|---|
| (Note: This PES has been prepared based on a July 1981 external evaluation and on AID IG audit (report 7-698-83-1 of November 1982). The actions identified below represent a melange of outstanding items from the evaluation, the audit, and other observations of the USAID/Upper Volta staff. It is also important to note that, while the evaluation reviewed all aspects of the SAFGRAD activity, the IG audit limited itself to the management and financial operations of the SAFGRAD coordination office in Ouagadougou.) | | |
| A. | B | C |
| 1. The Evaluation, the audit and recent meetings between the OAU principals (OAU/USAID/ICARS) all called for an expanded role of the OAU/STRC in implementing SAFGRAD. Such an expanded role requires: | | |
| A. approval of an expanded FY83 budget for both the Ouagadougou and Lagos operations; | Becker/Hughes | 4/15/83 |
| B. approval of an expanded FY 84 budget for both the OAU Ouagadougou and Lagos operations; and | Becker/Hughes | 7/1/83 |
| C. transmittal of USAID guidance on host country procurement of goods and services. | Becker/Hughes | 4/15/83 |
| 2. The Audit highlighted the importance for USAID to clarify implementation monitoring responsibilities between the field and Washington and transmit such clarification to OAU/STRC. | Naylor (AFR/RA) | 5/1/83 |

(continued on next page)

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- ☐ Project Paper
- ☐ Financial Plan
- ☐ Logical Framework
- ☒ Project Agreement
- ☒ Implementation Plan e.g., CPI Network
- ☒ PIO/T
- ☐ PIO/C
- ☐ PIO/P
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

- A. ☐ Continue Project Without Change
- B. ☐ Change Project Design and/or ☒ Change Implementation Plan
- C. ☐ Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

July 1981 evaluation team:
Herbert S. Hughes  Leopold Fakambi
John D. Hyslop  Robert W. Duell, Team Leader
Elon Gilbert
USAID/UV evaluation Officer: Michael Rugh

12. Mission/AID/W Office Director Approval

Signature: Lawrence C. Wilson

Typed Name: Emerson J. Melaven

Date: April 21, 1983

AID 1330-15 (3-78)

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| A. | B. | B. |
|---|---|---|
| The CC and TAC have been restructured as a result of evaluation and audit recommendations. The restructuring was discussed and decided upon in Brussels by the principals and must be formally introduced via a PIL. | Becker/Hughes | 5/1/83 |
| 4. The evaluation recommended and the principals agreed that the Director of Research position was imperative if SAFGRAD research was to be more fully introduced into the research networks of the participating member states. Therefore, if IFAD rejects the current proposal, USAID must consider fully financing the position until other donor support can be identified. | Gray (AFR/RA) | 6/1/83 |
| 5. Greater regional-level emphasis should be placed on soil and water research. Breeding work should be aimed at varieties adapted to farmers' current management and levels of output. | USAID/UV<br>Becker/Hughes<br>OAU/STRC | ongoing |
| 6. ACPO placement and role should be aligned to correspond with Recommendations 13 and 14 of the evaluation. | Becker/Hughes<br>OAU | ongoing |

Drafted by: OPR: Michael A. Rugh and OAG:John Becker (D)

Clearance: DDIR: L. Heilman

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13. Summary

Background and Summary Project Description:

SAFGRAD represents a major initiative for addressing fundamental constraints to increased food production in the vast semi-arid zones of sub-saharan Africa. The project purpose is to develop improved cereal varieties (millet, sorghum, maize) and grain legumes (cowpeas, groundnuts) and cultural practices which are compatible with small farm semi-arid farming systems; and to promote their adaptation and use in farmers' fields. Project activities fall into two broad areas: first, regionally coordinated research on staple cereals and grain legumes at three selected African research centers; second, support to national research, field trials and outreach programs to further develop, test, and extend improved technologies to farmers.

Policy and program guidance was to be provided by a Consultative Committee (CC) comprised largely of African national crop research and development authorities. A technical Advisory Committee (TAC) was to provide technical oversight and planning. The Scientific and Technical Research Commission of the Organization of African Unity (OAU/STRC) was to perform the vital role of regional coordination and administrative support for the project. As such the OAU/STRC is the grantee. AID's original contribution to SAFGRAD was earmarked in the Project Paper as follows:

| | |
|---|---|
| a. ICRISAT (Samaru, Nigeria) | $1,800,000 |
| b. IITA (Kamboinse, Upper Volta) | 3,307,500 |
| c. ACPO's (five) | 2,562,500 |
| d. Participant training | 2,000,000 |
| e. OAU/STRC Administration | 236,500 |
| f. Conferences | 313,500 |
| g. Commodities and Construction | 443,000 |
| h. Consultants | 234,000 |
| i. AID Project Officer | 570,000 |
| j. Contingencies and Inflation | 2,411,000 |
| | $13,878,000 |

In FY 1982, the project authorization was amended to extend the project from May 1983 to a new PACD of March 1985. In addition, the authorized life of project cost was increased to $16,475,000.

1981 Evaluation and Recommendations

The Semi-Arid Food Grain Research and Development Project (SAFGRAD) was formally evaluated in July 1981. That evaluation found project implementation to be basically on schedule with timely staffing, and personnel of the various implementing organizations working in a vigorous and professional manner. The major implementation weakness had been the failure to fully utilize SAFGRAD's policy and guidance structures. This had impacted on project orientation.

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Project emphasis has been on regional-level research with little effort given to the oversight of that work in terms of relevance to SAFGRAD's target group: the small farmers of sub-saharan Africa.

The July 1981 evaluation made 14 recommendations to improve project implementation. As of March 1983, the status of these recommendations is as follows:

Recommendation 1: SAFGRAD policy and guidance functions should be strengthened by revitalizing the Consultative Committee (CC) and Technical Advisory Committee (TAC) and institutionalizing their roles within the project.

Status: This has not happened, and was subject of recent audit recommendation. AID-OAU meetings of February-March 1983 have resulted in a first cut at revised management protocols for SAFGRAD. However, simply "revitalizing" the CC and TAC may not be the best route to strengthened management. The roles of both will become clearer when they convene in May 1983.

Recommendation 2: Greater relative emphasis should be placed on coordination of national with regional-level research efforts and relatively less emphasis placed on direct research at the regional level.

Status: There has been a small improvement. The present project manager, who was part of the evaluation team, believes it was a weakness of the evaluation in attempting to make policy-shift decisions in mid-stream. Such a shift is difficult to carry out quickly. Purdue has made an effort to refocus and expand from national to regional emphasis in its activities. It is unrealistic to expect a major shift within the present project; Phase II design should address this point.

Recommendation 3: Attention should be given to the permanence of SAFGRAD, i.e. institution-building.

Status: Until the evaluation, the permanence of SAFGRAD was of secondary concern. The USAID emphasis was, rather, on mobilizing research and transferring the information expeditously to the member states. The evaluation pointed out that this would necessarily be a long-term process involving greater participation of African institutions. As a result, OAU/STRC initiated two major actions. First, they reviewed their own support of the coordinator office and subsequently have expanded their Lagos backstop for the project. Second, the OAU/STRC has taken a leadership role in SAFGRAD and is bringing the office into line with other OAU/STRC institutions throughout Africa by introducing full OAU management procedures.

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Recommendation 4: OAU should be more active in pursuing donor support for SAFGRAD.

Status: As a result of the evaluation, AID/Washington advised OAU/STRC that the long-term viability of SAFGRAD was contingent on other donor participation. As a result, the new Executive Director of OAU/STRC, Prof. A.O. Williams, launched a campaign for SAFGRAD support from several international donor agencies including: the European Development Fund, the International Fund for Agricultural Development (IFAD), and the French FAC. In addition, he also pursued greater participation by the Institut de Recherches Agronomiques Tropicales.

Recommendation 5: Consideration should be given to empowering OAU/STRC as the contracting body for technical assistance activities.

Status: The USDA project manager believes this recommendation was ill-advised. Recent audit findings would superficially tend to support this position and no doubt an expanded role for OAU/STRC should await the arrival of a new management team in the coordinator's office. Nevertheless, if efficient SAFGRAD operations and management are to be based on several different donors, then it is appropriate that a uniform system of contracting be introduced (an OAU/STRC system).

Recommendation 6: The autonomy of the OAU/STRC Coordinator in Ouagadougou with respect to OAU/STRC headquarters in Lagos should be maintained in the making and implementation of operational decisions.

Status: This runs contrary to 1982 audit dindings. Recent events support a view that OAU should set up a system whereby headquarters has more input and operational control and it is in this direction that the project will head.

Recommendation 7: The operations of the Ouagadougou office should be strengthened by adding: (1) a Coordinator of Research responsible for the management of all technical research matters; and (2) one or two persons to the staff of the OAU/STRC Coordinator so that fiscal matters can be professionally handled.

Status: The OAU/STRC simultaneously began the search for a Director of Research as well as support for such a position soon after the evaluation was completed. Based on the expression of interest of IFAD in this area, the OAU/STRC, with the help of other participating SAFGRAD supporters, selected a Director of Research in March, 1983. To improve the management of fiscal matters, an accountant was hired with AID funds in March, 1982. Since then, the OAU/STRC as a result of audit findings have begun to introduce their own accounting systems as well as financial management and control procedures.

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Recommendation 8: OAU/STRC, with AID support, should negotiate with the other donors and implementing agencies they fund to bring them more closely into the SAFGRAD fold and achieve greater SAFGRAD influence over their research activities.

Status: The OAU/STRC began discussions with the ICARs on this matter upon the arrival of Prof. A.O. Williams. However, the greatest progess to date took place in Brussels (March, 1983) where the role of the CC and TAC were discussed. All participants agreed more coordination of SAFGRAD research activities was required and the OAU/STRC through its expanded Coordinator office would take the lead.

Recommendation 9: AID and OAU/STRC should consider placing the regional research centers under full SAFGRAD management to avoid questions of national sensitivity.

Status:No action taken and none envisioned. It is believed the evaluation team was not in agreement over the inclusion of this recommendation. We believe placing regional research centers under full SAFGRAD management would be counter-productive to those research efforts and would certainly offend the governments of the countries in which they are located.

Recommendation 10: Greater regional-level emphasis should be placed on soil and water research. Breeding work should be aimed at varieties adapted to farmers' current management and levels of output.

Status: Some progress has been made. ACPOs are placing more emphasis on agronomy. To the extent the opportunity has arisen to change personnel and policy, the movement has been towards emphasizing soil and water research. Lack of a TAC hindered making progress towards meeting both points in this recommendation.

Recommendation 11: The FSU team should concentrate on the adaptive farm trials component of its program for the remaining life of the current SAFGRAD project.

Status: The FSU team has fully complied with this recommendation and intensified its efforts on adaptive farm trials. Their current research directions will greatly enhance their final product.

Recommendation 12: (Concerns follow-on Phase II project and relates to design team and FSU when Phase II is implemented).

Recommendation 13: The ACPO role as liaison between national research and national extension should be his only mission. The permanent research staff of the national centers should take over responsibility for regional trials.

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Status: Recommendation has been partially fulfilled. ACPO contracts now emphasize their role as liaison and suggests they facilitate national research trials to be done by the nationals of the country in which ACPO is located.

Recommendation 14: ACPOs should be assigned to national farming systems programs in order to provide "leverage" to the farming systems' extension activities beyond the immediate areas in which they are working.

Status: Partially implemented. The Upper Volta ACPO has been urged to work with the FSU as there is not a national system's extension group. Also, the new Benin ACPO position is fully integrated with the national farming systems research effort.

14. Evaluation Methodology

The purpose of the evaluation was to determine: (a) the effectiveness of the funded research coordination, extension and training efforts; (b) the degree of adherence to the project plan and objectives; (c) to recommend revision of the project documents, if necessary; and (d) project and recommend a U.S.-supported follow-on project. Field work for the evaluation began in Ouagadougou in May 1981 by the five-member team, and encompassed visits to the primary sites of SAFGRAD regional activities in Senegal, Mali, Nigeria and Upper Volta.

Discussions were held with representatives of international and national research and extension organizations, expatriate researchers, and farmers in villages at points throughout selected participating SAFGRAD countries. The evaluation concentrated more on process than on products and outputs due to the fact that, at the time of the evaluation, the project was only half way through its projected five-year life.

15. External Factors

Not pertinent at this time.

16. Inputs

AID-funded staffing for the project, with exception of the ICRISAT team at Samaru,Nigeria, was realized in a relatively timely manner. Construction at Kamboinse, Upper Volta, and procurement of project vehicles also was realized without a detrimental delay to project implementation. Long-term training start-up experienced selection/placement delay due to varying selection procedures in participating countries, and coordination through the OAU/STRC mechanisms. The evaluation did not find any major problems directly related to input delivery.

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17. Outputs

The SAFGRAD project log frame cites seven major outputs:

Output 1: Regional Crop Research (varietal improvement/soils management).

The evaluation found SAFGRAD's major emphasis has been on varietal development research at the regional level, with most progress being on maize development by IITA at Kamboinse. AID-funded work on sorghum by ICRISAT at Samaru, Nigeria, was delayed due to initial contractor staffing problems and the lack of an agreement with Nigeria. The evaluation recommended greater regional emphasis be placed on soil and water research, and breeding work be aimed at varieties adapted to farmers' current management and levels of input.

Output 2: Regional farming systems research.

The Farming Systems Unit (FSU), implemented through a contract with Purdue University, was intended to give SAFGRAD a capability for basing its research and development activities on an understanding of the farmers' decision-making environment.

The FSU team concentrated its efforts on village-level studies in Upper Volta, almost exclusively. Its work plan called for detailed socio-economic surveys in the villages to provide data for models of production-consumption behavior. Management problems in data gathering and a lack of computer for tabulating and analyzing the data resulted in a failure to complete the planned formal analysis.

Partial analysis of the data and experience in working with villagers permitted the team to begin an on-farm agronomic trials program. The evaluation recommended the FSU team concentrate on the adaptive farm trials component of its program for the remainder of the SAFGRAD project, and that it should have a regional, rather than national, orientation (see 13 for further clarification).

Output 3: National field trials/demonstration activities.

This element of the project is the responsibility of the ACPOs (Accelerated Crop Production Officers) serving as a link between the crop researchers and the FSU team on one hand, and farmers and national extension units on the other. The role of each of the four ACPOs in place at the time of the evaluation has been based on an accomodation between that delineated in the PP and the constraints and opportunities presented by the institutions and resources in each SAFGRAD country.

Two ACPO issues cited in the evaluation are:(1) SAFGRAD regional versus national responsibilities; and (2) integration of the ACPOs' national work into a farming systems research program. The evaluation recommended the ACPOs' SAFGRAD regional field trial responsibilities be given to the national research program. At the ACPO level of the SAFGRAD project, the role in strengthening linkages is paramount in furthering the objectives of increased production of farmers. His time and material resources which

are allocated to SAFGRAD regional trials are not available to build up necessary bonds between research and extension.

The ACPO has been working primarily with results produced by crop researchers and not integrating his operations into national farming systems research.

Output 4: African scientists and technicians trained on the job.

The evaluation found African officials asserting the view that the training element was an indisputable and unequivocal positive project contribution. Thirteen degree-level participants were enrolled and three additional were being processed for training. The PP had envisioned a long-term training total of 160 student-years. Thus, while a positive element, the level is lower than planned and has started much too late to make a contribution to this phase of the SAFGRAD project. Short-term training is being managed by the international research institutes. Because AID funds were "pooled" with other training money, it was difficult to fiscally isolate training done with SAFGRAD funds. An estimate of 40 is believed reasonable. (The PP log frame indicator anticipates 40 person-years). SAFGRAD headquarters is attempting to gather together more definitive information to ensure more complete documentation.

Output 5: Systematic exchange of crop research information among scientists

Workshops were held in each of the crop research sectors and had participants from a wide selection of SAFGRAD countries. The workshop reports were well produced and distributed but appeared to lack significant technical input. The evaluation team noted that it was unclear how or to what degree workshop recommendations are distributed or acted upon outside the circle of workshop participants. The evaluation also noted information exchange gets a very perfunctory treatment both in the PP and in reality. Conference proceedings are published and distributed, as are IITA and ICRISAT reports, on the basis of fixed distribution lists on a one-time basis. The evaluation recommends a more formal system of information acquisition, storage, and retrieval as a logical element of SAFGRAD's coordinating function. The SAFGRAD Newsletter was viewed by the evaluation as excellent and beneficial in disseminating research information.

Output 6: System for regional research planning and coordinating

Policy and program guidance functions were vested in the Consultative Committee (CC) composed of African research and development officials and representatives of donor nations. The CC was to be assisted by a Technical Advisory Committee (TAC) of senior scientists from SAFGRAD member countries and international research agencies. Up to the time of the evaluation these two committees have been less effective than envisioned by the PP. The primary responsibility for convening the two committees rests with OAU/STRC.

.../...

Meetings of the CC and TAC have been infrequent ( and a liberal interpretation of "meeting" is necessary to state they have met annually as is required by the Agreement). The evaluation team believed the inactivity of these two committees is a primary cause for the project's failure to evolve beyond the research priorities set in the PP, or to truly integrate the activities of the researchers, and concluded there is a clear need to implement and accelerate the functioning of the two committees.

At this date, USAID does not totally adhere or support to this recommendation. The urgent need to restructure the management of the project is acknowledged, but the CC and TAC as originally designed are probably too unwieldy and impotent to have a major impact on the project. Leaner, more functional mechanisms have to be found to manage SAFGRAD and to direct and disseminate research. OAU-AID-contractor negotiations on this important point have recently taken place, and new, more functional, CC and TAC mechanisms have been established.

Output 7:

Research station infrastructure, construction of offices and laboratories at Kamboinse has been completed as planned.

18. Project Purpose

"To: (1) develop improved cereals (millet, sorghum, maize) and legumes (cowpeas, groundnuts) and cultural practices which are compatible with small farm semi-arid farming systems and to promote their adaptations in participating countries; and (2) strengthen the coordination and capability of African Research within a regional framework". In July 1981, at the time of the evaluation, research efforts were in progress to improve cereals and legumes through manipulation of genetic materials enhancing both yield potential and diseases and pest resistance. Most of the effort was taking place at research stations as opposed to on-farm trials. Since the evaluation, ACPOs have been stimulating increased on-farm trials utilizing improved seed varieties. These are still in the guided demonstration stage of utilization by farmers. It is still too early to assess the direct impact of improved seed variety adoption on the potential beneficiaries.

The OAU/STRC provides a broad regional framework within which research under the project is carried out. However, the CC and TAC have not played as active roles in strengthening regional coordination of African research as had been envisioned by the SAFGRAD project.

19. Goal/sub-goal

The project goal is "to increase the quantity and quality of staple food crops effectively available to the increasing populations in the semi-arid zone of Africa". Research efforts to improve food grain quality and production potential were in progress at the time of the evaluation. However, since improved food grain seed was being tested under controlled conditions and not being made available to farmers on a commercial scale, virtually no

.../...

measurable progress was noted in achievement of the project goal. Research results, however, point to substantive future improvement of food crop production which, assuming farmer field trials convince the local farmer of their superiority, should improve quality and quantity of staple food crops. Further, the Purdue Farm Systems Research Unit has considerably expanded its on-farm program since the evaluation.

20. Beneficiaries

Of an estimated 165 million inhabitants in the SAFGRAD countries, an estimated 70-80% are engaged in small farm agriculture. Additionally, others cultivate cereals and grain legumes as their principal staples.

As noted earlier in this PES, the research now being conducted appears promising, but to date, few tangible benefits have accrued to the small-scale farmer as a direct result of project activities.

21. Unplanned Effects

None noted.

22. Lessons Learned

Relationship between donors and OAU were very poorly defined. The agreements made between USAID and participating contractors were also ambiguous and left many loopholes, creating pitfalls for effective project implementation at the program level.

The major implementation weakness has been the failure to fully utilize the project's policy and guidance structures. Inactivity on the part of the Consultative Committee and the Technical Advisory Committee has created a policy vacuum which was filled, in part, by the OAU/STRC Coordinator and the AID Project Officer. They neither can nor should take over the functions which should be carried out by these committees or suitable alternates This failure has impacted on the regional-level research, and more effort should be given to the oversight of that work in terms of its relevance to SAFGRAD's target group of beneficiaries - the small farmers of sub-saharan Africa.

CLASSIFICATION

# PROJECT EVALUATION SUMMARY (PES) — PART I

Report Symbol U-447

| 1. PROJECT TITLE | 2. PROJECT NUMBER | 3. MISSION/AID/W OFFICE |
|---|---|---|
| Semi-Arid Food Grain Research and Development (SAFGRAD) | 698-0393 | AFR/RA |

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY)
1st Internal Evaluation

☒ REGULAR EVALUATION ☐ SPECIAL EVALUATION

| 5. KEY PROJECT IMPLEMENTATION DATES | | | 6. ESTIMATED PROJECT FUNDING | 7. PERIOD COVERED BY EVALUATION |
|---|---|---|---|---|
| A. First PRO-AG or Equivalent FY 1977 | B. Final Obligation Expected FY 1981 | C. Final Input Delivery FY 1983 | A. Total $ 21.4<br>B. U.S. $ 13.8 | From (month/yr.) April 1977<br>To (month/yr.) December 1978<br>Date of Evaluation Review December 1978 |

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

| A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.) | B. NAME OF OFFICER RESPONSIBLE FOR ACTION | C. DATE ACTION TO BE COMPLETED |
|---|---|---|
| | | |

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- ☐ Project Paper
- ☐ Financial Plan
- ☐ Logical Framework
- ☐ Project Agreement
- ☐ Implementation Plan e.g., CPI Network
- ☐ PIO/T
- ☐ PIO/C
- ☐ PIO/P
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

- A. ☐ Continue Project Without Change
- B. ☐ Change Project Design and/or ☐ Change Implementation Plan
- C. ☐ Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

Arlan B. McSwain, Proj. Officer, USAID/Ouaga
Charles A. Sanders, Agr. Dev. Off., AFR/RA, AID/W
Amos Odelola, Exec. Sec.,OAU/STRC, Lagos, Nigeria
Karim O. Akadiri-Soumalia, Proj.Off.,OAU/STRC,Ouagadougou, U.V.

12. Mission/AID/W Office Director Approval

Signature [illegible]

Typed Name E. Dennis Conroy, AFR/RA

Date 295

AID 1330-15 (5-76) Clearance:USAID/Ouaga [illegible]

CLASSIFICATION

# PROJECT EVALUATION SUMMARY (PES) — PART I

Report Symbol U-447

| 1. PROJECT TITLE | 2. PROJECT NUMBER | 3. MISSION/AID/W OFFICE |
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4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) _____

☐ REGULAR EVALUATION ☐ SPECIAL EVALUATION

| 5. KEY PROJECT IMPLEMENTATION DATES | 6. ESTIMATED PROJECT FUNDING | 7. PERIOD COVERED BY EVALUATION |
|---|---|---|
| A. First PRO-AG or Equivalent FY____ B. Final Obligation Expected FY____ C. Final Input Delivery FY____ | A. Total $ _____ B. U.S. $ _____ | From (month/yr.) _____ To (month/yr.) _____ Date of Evaluation Review |

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

| A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.) | B. NAME OF OFFICER RESPONSIBLE FOR ACTION | C. DATE ACTION TO BE COMPLETED |
|---|---|---|
| (1) Conduct Consultative Committee Conference | OAU/STRC-Akadiri AID-McSwain | Dec. 1979 |
| (2) Conduct technical committee conference. This may need to be divided into 3 or 4 technical conferences (such as maize; sorghum/millet; farming systems; and field trials) | AID - McSwain OAU/STRC - Akadiri | ~~Aug.~~ May 1979 |
| (3) Complete an inventory of regional manpower needs for crop/soil researchers as part of planning for SAFGRAD training program. | OAU/STRC-Akadiri | Dec. 1979 |
| (4) Negotiate agreement with the Federal Government of Nigeria providing for SAFGRAD project activities in Nigeria. | OAU/STRC - Akidiri | March 1979 |
| (5) Negotiate agreements with each participating country setting forth the general objectives and activities of the Accelerated Crop Production Officer in each of the participating countries. | OAU/STRC - Akidiri; w/AID-McSwain's assistance | Dec. 1979 |
| (6) Officially seek donor support for those portions as identified in the Project Paper and expedite agreements to implement other donor assisted components of the project . | OAU/STRC - Akidiri | June 1979 |

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- ☐ Project Paper
- ☐ Financial Plan
- ☐ Logical Framework
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- ☐ Implementation Plan e.g., CPI Network
- ☐ PIO/T
- ☐ PIO/C
- ☐ PIO/P
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

- A. ☐ Continue Project Without Change
- B. ☐ Change Project Design and/or ☐ Change Implementation Plan
- C. ☐ Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

12. Mission/AID/W Office Director Approval

Signature

Typed Name

Date

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CLASSIFICATION

# PROJECT EVALUATION SUMMARY (PES) — PART I

Report Symbol U-447

| 1. PROJECT TITLE | 2. PROJECT NUMBER | 3. MISSION/AID/W OFFICE |
|---|---|---|
| Semi-Arid Food Grain Research and Development (SAFGRAD) | 698-0393 | AFR/RA |

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) _____

☐ REGULAR EVALUATION ☐ SPECIAL EVALUATION

| 5. KEY PROJECT IMPLEMENTATION DATES | 6. ESTIMATED PROJECT FUNDING | 7. PERIOD COVERED BY EVALUATION |
|---|---|---|
| A. First PRO-AG or Equivalent FY____ B. Final Obligation Expected FY____ C. Final Input Delivery FY____ | A. Total $ _____ B. U.S. $ _____ | From (month/yr.) _____ To (month/yr.) _____ Date of Evaluation Review |

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

| A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.) | B. NAME OF OFFICER RESPONSIBLE FOR ACTION | C. DATE ACTION TO BE COMPLETED |
|---|---|---|
| (7) Contractors and Project Officers must make more effort to fully staff all AID funded positions. | All contractors and Project Officers | May 1979 |
| (8) AID issuance of FY 1979 obligation and sub-obligation documents. | AID Project Officers | June 1979 |

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- ☐ Project Paper
- ☐ Financial Plan
- ☐ Logical Framework
- ☐ Project Agreement
- ☐ Implementation Plan e.g., CPI Network
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- ☐ PIO/C
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12. Mission/AID/W Office Director Approval

Signature

Typed Name

Date

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SAFGRAD 698-0393 PES DRAFT

13. Summary - The implementation of this project is now becoming much more active with the arrival of researchers from IITA and Purdue University. Also, three (Mali, Upper Volta and Togo) of the five AID assisted country field trials programs are well into their second year of implementation. In spite of this increase, the project is approximately one year behind schedule in relation to the project design schedule. The specific areas behind schedule can be identified in the chronology (Section 16) and the progress listed on the critical path indicators (Section 17).

The main problems encountered involved delays in contract negotiation and posting of staff (including AID DH Project Officer, OAU/STRC Project Coordinator, Contract Staff); nomination of qualified participants for training; host country agreement (OAU/STRC and Nigeria); and timely commitments by other donors.

The OAU/STRC has scheduled the first technical conference on maize and the first SAFGRAD Technical Advisory Council in recent weeks which has increased interest and communication on the project. Also, the issuance and distribution of the Interim Project Status Report (March 1979) is resulting in renewed interest in the project. Six additional participating countries joined the SAFGRAD program in October 1977, which increases need for greater host country and other donor support for the SAFGRAD project.

In recognition of the above and the long term nature of food crop research and development, it is believed essential that the SAFGRAD project

be extended at least one year at the present time. An evaluation of the project in about 18-24 months could provide guidelines for future actions.

14. EVALUATION METHODOLOGY - This internal report is being prepared in order to measure progress and improve project implementation. The opinions of the project staff, grantee staff, participating contractors, and host country officials have been secured and included herein to the extent possible.

It was recognized during the development of this project paper (page 87) that the"timeframes needed to be somewhat flexible". This report clearly reveals that the timeframes were indeed "extremely optimistic". The lengthy delays in securing approval of the initial project paper (approved in April 1977), after over 2 years of preparation, should have been ample warning that even more delays were in store during the implementation of this complicated project involving so many differing parties and addressing food crop research and testing in such a vast geographic area.

15. EXTERNAL FACTORS - There have been no major changes in project setting nor in the priorities of the host governments. The number of participating countries has been increased by the OAU/STRC from 18 to 24, which, when fully implemented, may necessitate either increasing funding requirements or reducing the benefits to the 18 original countries in order to spread research results and testing to 24 countries. Since the project is still in the early stages of implementation, it is not possible to adequately determine what the impact of this evaluation will be upon the end results of this project.

16. INPUTS - The major problem has been the timely scheduling of management actions necessary for implementation of this project. A chronology of the key actions taken (including dates, current status, and comments) is indicative of the delays experienced in this project.

# Chronology

| | Action | Date | Status/Comment |
|---|---|---|---|
| a. | Project Paper (PP) approved | April 1977 | The 1st technical officer made a field visit to Africa in June 1975; PRP approved Dec. 1975; and the design team made the initial field visit in May/June 1976. PP approved April 1977. |
| b. | Grant Agreement signed between AID and OAU/STRC | May 1977 | Grant Agreement amended Sept. 1977 and April 1978. |
| c. | PIO/T 698-6177353 issued covering three researchers, commodities, training & operating costs. | May 1977 | Contract REDSO/WA 78-106 signed w/IITA by REDSO/WA in March 1978. |
| d. | PIO/T 698-6177354 issued covering four researchers, commodities, training & operating costs. | May 1977 | Contract signed w/ICRISAT by USAID/Islamabad in May 1978. |
| e. | PIO/T 698-6187153 issued covering three researchers, commodities, training & operating costs. | December 1977 | Contract signed w/Purdue Univ. in December 1978. |
| f. | PIO/T 698-6187152 issued covering one researcher, commodities, training & operating costs. | December 1977 | Added 1 researcher to IITA contract negotiation in March 1978 (see Item c. above) |
| g. | PIO/T 698-6177352 issued covering one ACPO for posting at Bamako, Mali.<br>PIO/T 698-80023 issued extending services for one additional year | May 1977<br>June 1978 | Contract REDSO/WA 77-111 for PSC signed June 1977, with contractor EOD September 1977. |
| h. | PIO/T 698-6177355 issued covering one ACPO for posting at Ouagadougou, Upper Volta | June 1977 | Contract for PSC signed January 1978, with contractor EOD April 1978. |
| i. | PIO/T 698-80022 issued covering one ACPO for posting at Ndjamena, Chad | July 1977 | Contract for PSC being negotiated December 1978 with contractor EOD scheduled January 1979. As of March 1979, efforts were being made to staff the project and at the other countries |
| j. | Project Agreement signed between AID and Republic of Togo covering field trials. | October 1977 | Field trials conducted in four areas of Togo. |
| k. | AID Project Officer entered on duty at Ouagadougou | October 1977 | Recruitment initiated in Jan.,1977 after agency was unable to locate qualified French speaking in-house candidate over a two year period. |

| Action | Date | Status/Comment |
|---|---|---|
| l. OAU/STRC Project Co-ordinator entered on-duty at Ouagadougou | May 1978 | Candidate recruited and served approximately 3 months when injury in auto accident resulted in approximately 2 months leave. |
| m. OAU/STRC Project Office established in Ouaga | August 1978 | |
| n. PIO/P 698-70866 issued for Mr. Da, sorghum breeder, Upper Volta | May 1978 | $27,~~400~~ 866 funded for two years |
| o. PIO/P 698-70867 issued for Mr. Kargougou, agronomist, Upper Volta | July 1978 | $~~14,200~~ 15,611 funded for one year |
| p. PIO/P 698-70870 issued for Tigana, Malian | August 1978 | 14,280 |
| q. PIO/P 698-80030 (89192 per State 304128) issued for Coulibaly | | |

n. One short-term participant (2 mo) trained under the IITA Contract in 1978 (Mr Idrissa Kenou, Upper Volta).

II. Although not an AID input, it is appropriate to record that UNDP/ICRISAT and IDRC/IITA collaborative inputs have been proceeding at the Kamboinse Research Center in Upper Volta. Also, that UNDP/ICRISAT researchers on sorghum/millet are posted in Senegal/Nigeria/Niger/Sudan. The initial posting of ICRISAT researchers at Kamboinse Center took almost a two year effort. On the other hand, posting of the other officers was accomplished in a much improved time span. The IDRC/IITA legume researcher was posted within approximately three months after agreements were negotiated.

Although there have been day-to-day delays in the related inputs from these two sources, these have not significantly adversely affected the project progress.

III. In consideration of the above, it is believed essential that more aggressive implementation actions are required by all parties. Comments and/or major actions required are:

a. IITA has proceeded with implementation of their contract. Four specialists have been nominated and some TDY assistance has been provided. Commodities are mostly ordered. AID needs to issue a PIO/T to add funds and amend the contract. IITA needs to plan short-term training programs. They are currently planning a conference on Maize in February 1979. Selection of qualified French speaking researchers took longer than anticipated.

b. ICRISAT has only begun to recruit candidates for their four positions. There was some delay in negotiation of the contract because of AID management practices, such as, USAID/Islamabad being the authorized agent without specific funding to pay the travel/per diem costs of their contracting officer. Also, ICRISAT negotiated for various exceptional privileges. Islamabad was designated the authorized agent because of the inability of REDSO/WA to negotiate the contract within a reasonable time frame.

c. The contract negotiation with Purdue University has also taken longer than was anticipated. The negotiation process has apparently been prolonged because of Purdue's initial budget being somewhat unrealistic. One of the contracts sent to Purdue was returned to AID/W for various changes. While all the specifics are not readily available, it appears that AID either needs to accept that it will take approximately one year to negotiate an institutional contract (from date PIO/T is issued until signing of the contract) or improve the agency programming and management system (by simplification if possible) to reduce the time requirement. A related factor in this contract may well be the U.S. Government ban on travel to Ouagadougou. The contractor has one of three staff members ready to EOD. Another factor is Purdue's capability to recruit. Currently they have one of the other two candidates identified. Thus, it appears

that AID needs to recognize that the U.S. University contractor and probably other contractors require time to field staff. This could take a period of three or more months. Thus, one can readily envision an 18 month delay between issues of a PIO/T and entrance on duty by the contractor staff in project implementation which seems to be built into the agency program and management system.

d. Only four of the five planned AID assisted ACPO activities have been implemented:

| | |
|---|---|
| Mali | - Sept. 1977 |
| Togo | - Oct. 1977 |
| Upper Volta | - ~~June 1977~~ April 1978* |
| Chad | - Jan. 1979 (Planned arrival date delayed due to internal instructions) |

OAU/STRC needs to increase efforts to initiate the fifth AID assisted ACPO activity and the ACPO activities within each of the remaining participating country with other donors or the host country officials.

At this time, no significant changes in inputs have been identified.

17. OUTPUTS - Evaluation of actual progress of crop research is difficult in the short run because it is a long-term activity. Critical Path Indicators are listed as taken from the PP (pages 81-85) with current status indicated for each.

(1.) Project Paper Draft

SAFGRAD Project Paper (PP) sent to participating countries, donors, research institutions, OAU/STRC, USAID's for comment. Critical 11/76 = completed.

(2.) ACPO Requests

Participating countries in liaison with OAU/STRC, have planned/arranged for an Accelerated Crop Production Officer (ACPO), either national or expatriate,

* Field trials in sorghum and millet were conducted in 1976/77 by ICRISAT/IITA specialists.

for the 1978 crop year, possibly even for the 1977 crop year. Critical 1/77 = completed in Mali, Upper Volta, Togo, and Chad.

3. PP finalized in AID/W based on reviewers' comments. Target 1/77. Critical 2/77 = approved April 1977.

4. Consultative Committee Organized

OAU/STRC arranges for the organization of the SAFGRAD Consultative Committee (CC) and the Technical Advisory Committee. Target 4/77. Critical 6/77 = completed at OAU/STRC SAFGRAD Conference October 1977.

5. Consultative Committee Organized

First convening should occur as early as possible. Target 5/77. Critical 10/77 = considered adequately convened during conference in October 1977.

6. Grant Agreement signed with OAU/STRC.

Grant agreement will specify AID as implementing agent for certain elements of the agreement (i.e., (1) Technical Assistance (researchers, ACPO, short-term consultants) to be provided by ICRISAT, IITA, or U.S. Universities. (2) Certain commodity procurement, e.g., vehicles, scientific equipment, (3) Construction at Kamboinse (4) Participant training. OAU/STRC will be principle implementing agent for (1) Administrative/coordination support (Refer to numerous OAU/STRC functions in this regard -- IV.A. Administrative Arrangement, (2) Scientific conferences.

In every case, contracts or project implementation orders(PIO) will be cleared and approved by the host governments directly involved, e.g., the Government of Nigeria must be party to any contract providing researchers to IAR, Nigeria; the Government of Upper Volta must be party to any contract providing researchers to Kamboinse, etc. Target 5/77. Critical 6/77 = Grant

Agreement signed May 1977; PIO/Ts issued for IITA and ICRISAT at same time; PIO/T for U.S. University issued December 1977 because of funding shortage in FY 1977.

(7.) Recruitment

Informal recruitment of expatriate scientists and ACPOs begun in anticipation of SAFGRAD project. Target 5/77. Critical 2/78 = Delays in contract negotiation and contractor nominations. Four IITA researchers approved; One Purdue University researcher nominated.

(8.) AID-US. University(s) Contract(s)

Contract(s) signed with OAU/STRC and GOUV approval, to provide Farming Systems Unit. Target 6/77. Critical 10/77 = Contract negotiated December 1978.

(9.) AID-IITA Contract

Contract signed with IITA, and approved by OAU and Government of Upper Volta, to provide technical assistance and operating support to SAFGRAD regional maize and grain legume research activities at Kamboinse. Target 6/77. Critical 10/77 = Contract negotiated March 1978.

(10.) AID-ICRISAT Contract

Contract signed with ICRISAT, and approved by OAU and Governments of Nigeria and Upper Volta, to provide technical assistance plus operating support to SAFGRAD regional millet and sorghum research activities at IAR and at Kamboinse. Target 6/77. Critical 10/77 = Contract negotiated May 1978.

(11.) Research Agreement

AID and OAU/STRC signs Memoranda of Agreement with the Governments of Nigeria and Upper Volta regarding the nature, scope, support of SAFGRAD activities to be conducted at IAR and Kamboinse, respectively. Target 6/77. Critical 10/77 = Completed in Upper Volta Oct.-Dec. 1977. ~~Drafted for~~ Nigeria Agreement

[illegible] 1978 - delayed because OAU/STRC Project Officer was seriously injured in auto accident.

(12.) OAU/STRC Office

Coordinating Office established in Ouagadougou. Target 6/77. Critical 8/77 = Established in August 1978.

(13.) AID Project Officer arrives in Ouagadougou.

Target 6/77. Critical 7/77 = arrived October 1977.

(14.) Conference Plan

OAU/STRC plans first year scientific conference (up to 3 conferences). Second convocation of the Consultative Committee and the technical committee may be combined with the first scientific conferences. Plan also the first ACPOs conference. Target 7/77. Critical 9/77 = Conference all parties (including two committees) held in October 1977. A technical conference was planned but not convened in August 1978. Another ~~is scheduled~~ in February 1979. [illegible] conducted on Margin Food Security Planning & Technical Advisory Committee meeting is scheduled in May 1979 in Togo.

(15.) Training Needs Assessment

OAU/STRC in coordination with AID project manager will assess and prioritize manpower training needs in national cereals and grain legume research needs. A short-term consultant may be necessary to develop this assessment. A SAFGRAD training plan will be developed from this assessment and approved by the CO. Target 9/77. Critical 1/78 = Discussed at the Ouagadougou Conference in October 1977. Needs follow-up.

16. Participant Training Plan completed and approved. See 18, above. Target 10/77. Critical 2/78 = needs follow-up.

(17.) Other Donor ACPO Agreements

Where ACPOs are not AID funded, bilateral grant agreements signed between

national governments and donors of their choice to provide ACPOs and operating support. Where national governments provide their own ACPO, arrangements for assignment and national support should be made. Agreement should specify understandings regarding ACPO role, position in the national government, and operating support (national and donor provided). Target 12/77. Critical 2/78. ACPO activities progressing well in Mali, Upper Volta, Togo and Chad. Status unknown in other countries. Needs follow-up.

18) Field Trial Workplans

Prior to organization and operation of the CC and the technical committee, abbreviated first year research workplans and field trial workplans will be developed by ICRISAT and IITA, in conjurction with host government and OAU/STRC, for crop year 1978. Target 12/77. Critical 2/78 = ACPOs in Mali & Upper Volta had drafts of workplans; IITA developed workplan for maize; reminder of workplans need developing.

19.) AID ACPO Agreements

AID and OAU/STRC sign Agreements with each country where an AID funded ACPO is to be provided. Understandings should be reached about the ACPO role, his position within the national research program, his operating support (National and donor and relationship to national extension/development programs support). Target 12/77. Critical 2/78 = Completed in Mali, Upper Volta, Togo. In process in Chad.

20.) Construction

Begin construction of office and lab facilities at Kamboinse, Target 12/77. Critical 2/78. = Currently under construction. Approximately 80% complete as of ~~April~~ March 1979.

(21) Millet/Sorghum Conference

[illegible]st scientific (millet/sorghum) held possibly with convening of CC and Technical Advisory Committee. Target 12/77. Critical 3/78. = Pending — [illegible] in May 1978.

(22) Scientists on-board

All AID funded researchers and ACPOs on-the-job. Target 2/78. Critical 4/78. = 4 of 5 AID funded ACPO's underway. IITA provided TDY researchers on Maize and four researchers scheduled to EOD within next three months. No [illegible] other researchers on board at this time.

(23.) Research workplans

SAFGRAD researchers (at IAR, Kamboinse, Bambey) draft regional research workplans, (a) general plans for the 4 year period 1978-1981, and (b) detailed workplans for crop year 1978. Draft plans should be developed in close coordination with host national research institution and in conformance with CC and Technical Committee guidance (per item 21). Plans should (1) State station objectives and approaches by crop or by area of study. (2) Quantify the work to be performed (to extent reasonable). (3) Itemize the inputs and costs ( annual budget) needed to conduct the 1978 research program (4) Discuss the administrative, organizational, logistical arrangements needed to carry out the plan.

The 4 year plan will be revised annually. Plans will be reviewed and approved by the Consultative Committee upon the advice of the Technical Committee. Target 2/78. Critical 3/78 = Pending.

(24.) Farming Systems workplans

Farming systems drafts workplans (a) general overall 4 year plan and (b) detailed workplan for crop year 1978. The long-term plan is particularly important and should present a strategy for addressing the two crucial project issues over

the life of the project, i.e., (1) How to make crop research relevant (technically, economically, etc.) to farmers conditions (2) How to transfer technology to farmers' fields. The Farming Systems Unit should describe the type of coordination envisioned with ACPO in planning, conducting and appraising farmer field trials studies. Plans should be coordinated with the regional varietal improvement workplans.

The annual farming systems plan ~~soll~~ should (1) State objectives/approaches (2) Quantity work (3) Budget for work (4) Describe the organizational/administrative arrangements. Target 2/78. Critical 3/78. = Delayed due to contract being negotiated in December 1978.

25.) ACPO Workplans

Each ACPO develops a workplan for the year ahead. This plan should be developed in close coordination with national research and outreach officials and reflect the guidance of the Technical Advisory Committee and the SAFGRAD regional researchers. The plan should be responsive to national problems and to the effective use of regional SAFGRAD provided support (vis-a-vis the regional varietal improvement programs field trials/studies programs and the FSU programs). Plans should:

(1) State objectives and approaches regarding:

(a) Uniform variety trials; (b) Farmer Field trials; (c) Extension/demonstration linkages (d) Coordination of activities with crop improvement researchers; (e) Studies related to these activities.

(2) Quantify work to be achieved.

(3) Budget for work

(4) Describe organizational/administrative arrangements.

Plans should be completed in time to permit a serious ACPO effort in Crop Year 1978. Target 2/78. Critical 3/78. = Adequately completed in Mali, Upper Volta & Togo. Others remain to be done.

26.) Conference (maize/cowpea)

Maize/cowpea scientific conference held. Note: Date of conference is flexible. February is suggested so as (1) not to overlay too closely with the Millet/Sorghum conference in December and (2) To fall at about the same time the research workplans are being developed. Target 2/78. Critical 4/78 = Previously scheduled maize conference not convened. Currently rescheduled February 1979.

27.) Consultative Committee

CC or Tech Committee convenes third time at second scientific conference. Intent is to review research and field trials workplans and to provide management direction and generally facilitate actions (personal, financial, logistic, administrative, management, etc.) needed to bring about implementation of plans and a full SAFGRAD program in crop year 1978. Target 2/78. Critical 4/78. = Last SAFGRAD Conference in October 1977. This plan needs review~~s~~ and revision to be more realistic.

28.) Annual reports

In any annual field trials and research reports, specify problems, progress. Target 2/78. Critical 2/78. Not applicable where no SAFGRAD activities undertaken in CY 1977. = ~~??~~ Field ~~should~~ supply status.

29.) OAU/STRC plan

OAU/STRC, with guidance of CC, initiates plan of administrative action to help effect implementation of workplans as scheduled. OAU/STRC will review research and ACPO workplans in view of implications vis-a-vis OAU/STRC functions.

(Reference IV.A. Administrative Arrangements, for list of OAU/STRC functions regarding this project.) Target 3/78. Critical 3/78 = Field should provide status.

(30.) ACPO Conference

Annual ACPOs conference. Review results of previous crop year work. Review plans for coming year. Target 3/78. Critical 6/78. = Not enough activity to justify conference due to delayed implementation.

(31.) Construction complete

Complete construction and equipping of facilities of Kamboinse. Target 5/78. Critical 5/78. = Construction underway; facilities needed early in CY 1979.

(32.) Field Trials

Per workplans developed (item 8), field trials commence for crop year 1978. Note: A few trials may begin earlier than this, in crop year 1977 where ACPOs are on-board early. Target 5/78. Critical 5/78. = Field should supply status.

Several of the above activities require revision on an annual basis. Monitoring of this task is the responsibility of the OAU/STRC Project Coordinator and the AID Project Officer, both posted in Ouagadougou.

18. PURPOSE - The Project Purpose Summary on page 115 of the PP states: "1. Develop improved cereal varieties (millet, sorghum, maize) and grain legumes (cowpeas, groundnuts) and cultural practices which are compatable with small farm semi-arid farming systems, and promote their adaptation and use in farmers' fields; and 2. Strengthen the coordination and capability of African research within a regional framework."

At this time it is not feasible to attempt to cite specific progress toward each End of Project Status (EOPS). This is largely due to the delays noted elsewhere in this evaluation paper.

There has been some progress in research and testing on the five crops addressed in this project. Some Germ plasm has been drawn from the two International Centers (IITA & ICRISAT) and from other sources (IRAT, CIMMYT, CIAT, etc.). These materials have been incorporated in limited applied research at Kamboinse and Samaru by existing non-AID researchers. The best resulting seed developed at these sites has, in turn, been distributed to ~~several~~ some of the participating countries. The ACPO activities under SAFGRAD in Upper Volta, Mali, and Togo have conducted field trials on government stations and farmers' fields. Although one year of results is not adequate to do more than identify possibly strengths and weaknesses in varieties tested in order to improve upon the trials for succeeding years.

AID financed IITA TDY researchers (under SAFGRAD) have conducted research plots on maize at Sarias, Upper Volta. These will be continued by the permanent IITA maize research team which will be on board for the next planting season.

OAU/STRC has conducted two conferences focused on the SAFGRAD Program. The first conference was conducted at Ouagadougou in January 1976. Representatives from 14 African countries, 5 Donors, and 5 International Centers/Agencies

were in attendance. It was on the basis of unanimous positive reactions to the AID prepared PID for this project that further effort was made to proceed with the SAFGRAD proposal.

The second conference was conducted at Ouagadougou in October 1977. This conference was attended by representatives from 11 African countries, 6 Donors, and 6 International Centers/Agencies. The report of this conference recommended increasing staff for the SAFGRAD program and adds 6 additional participating African countries bringing the total to 24.

To date, only four African trainees have been identified for degree level training in the U.S. One ~~short-term~~ participant was ~~identified~~ in Togo for training ~~at IITA~~.

A research station plan for the Kamboinse research station has been completed by ICRISAT and IITA staff under the SAFGRAD Project. A&E plans have been completed, and construction/equipping (including installation of utilities) is currently underway.

Other donor researchers on-board include:

- 13 ICRISAT/UNDP at Kamboinse, Upper Volta; Samaru, Nigeria; Bombey, Senegal; and Wad Medina, Sudan.
- 1 ICRISAT/Neitherlands Soil/Water Agronomist is on board in Upper Volta.
- 1 IITA/IDRC Legume Breeder is on board in Upper Volta (bilateral assistance).

Arrangements are still pending vis-a-vis the FAC, ODM,other donors and increased African country participation. This is a matter that needs OAU/STRC's immediate attention.

19. GOALS/SUBGOALS - The approved goal of this project is "To increase the quantity and quality of staple food crops effectively available to the increasing populations in the semi-arid zone of Africa". Progress toward this broad goal is not measurable with any degree of accuracy at this time. Progress has been slower than anticipated in the original PP. Most of this can be attributed to some optimism by all parties and AID's ~~an overly sophisticated~~ programming and management system ~~which AID~~ imposed in a very simple, unsophisticated, social and economic environment.

20. BENEFICIARIES - Project beneficiaries are subsistence food crop farmers in the Sudanian-Sahelian zones. If research results are effectively disseminated and utilized, this project could eventually benefit 80% of the total rural and urban population of approximately 224.0 million in the 24 countries. Food crops researched and tested under this project provide approximately 75% of the cereal supply in 14 of the 24 countries.

21. UNPLANNED EFFECTS - Not pertinent at this stage of project implementation.

22. LESSONS LEARNED - One of the drafting officers, who has participated in the planning and technical backstopping of this project since early 1976 has considerable reservations about AID's capability or that of African organizations to successfully implement a project of this magnitude. Too much emphasis has been placed on project design and not enough on implementation to-date. There have been numerous delays. A few of the significant delays have been:

a. Delay in identification of the AID Project Officer.

b. Delay in approval of the Project Paper.

c. Delay in negotiation of contracts.

d. Delay in OAU/STRC Project Officer identification and arrival at post.

e. Delay in OAU/STRC securing adequate host country agreements.

f. Delay in OAU/STRC following-up to secure other donor and participating country involvement/support.

g. Delay in conducting conferences involving consultative and technical committees and others.

~~This evaluation is, in the opinion of this drafting officer, too sophisticated and premature for this project.~~ An evaluation after two or three years of implementation would be more meaningful.

23. SPECIAL COMMENTS OR REMARKS - In spite of delays in implementation, and the fact this is a complicated project, it does address key areas of constraints in a large developing area. At this stage greater emphasis needs to be given to implementation of the project. The project will need to be extend~~ing~~ed for approximately two years to reach the most useful results. This should be accepted as Phase I of the SAFGRAD effort with anticipation of one or more phases being required if progress is judged satisfactory at the end of Phase I.

# E V A L U A T I O N  R E P O R T

STRC/OAU JOINT PROJECT

J.P. - 26

MAJOR CEREALS IMPROVEMENT PROJECT

WEST AFRICA  AID 625-11-130-305

Washington, D.C.  July 25, 1973

MAJOR CEREALS IMPROVEMENT PROJECT - WEST AFRICA

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# I. INTRODUCTION

This report was prepared by a four-man team organized by AID and STRC to conduct a special, in-depth evaluation of the progress achieved thus far and to make recommendations for the remaining life of this project, initiated in FY 1964 and now scheduled for termination in its present form at the end of FY 1975. The evaluation study was conducted during the period May 18 - June 15.

Upon assembly in Lagos, the team attended an STRC briefing on Project J.P - 26; proceeded to the USDA Team headquarters at IAR in Samaru; and thereupon visited five other participating countries: Niger, Upper Volta, Senegal, Cameroon, and Chad. Enroute, the team toured research and field stations at IITA, Ibadan; Kano State Farm; IRAT/Tarna at Maradi, Niger; IRAT/Bambey in Senegal; and IRAT/Maroua in Cameroon and held meetings with key government officials, STRC and USAID representatives, researchers, advisors and related technical personnel in the countries visited.

Included in the report's Appendix are the List of Evaluation Criteria, or the frame of reference for this study and a Logical Framework Matrix for use in regular annual project evaluations, or PARS.

The evaluation team members participated jointly in the drafting of the recommendations contained herein and the main body of the report but Parts V and IX were completed by the AID member after the other team members departed Lagos on June 15.

The evaluation team expresses its sincere appreciation to STRC and USAID offices in Lagos and Niamey, IAR and PASA Team in Samaru; the governments of the participating countries and the regional research organizations for the warm hospitality and excellent cooperation extended in the conduct of this study.

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## II. SUMMARY RECOMMENDATIONS

### A. Strengthening Capacity of STRC Coordinator's Unit

1. A bi-lingual agronomist or other trained agricultural specialist should be added to the STRC Coordinator's staff as soon as possible to coordinate at the technical and operational levels the activities of PASA Team, FTOs and project seed multiplication stations. He may also serve as the secretary for the proposed project Executive Committee on Research and Training.

2. The evaluation team welcomes transfer of the AID Project Manager to Lagos which should improve project implementation, strengthen STRC's coordinating role in the project and facilitate closer contact with PASA and FTO personnel.

3. STRC is encouraged to proceed with the planned 1973 "Conference on Research Needs for Increased Cereals Production in West Africa" and the establishment of an Executive Committee on Research and Training Needs. However, this conference should not exclude continuation of the regular bi-annual seminars for researchers, plant breeders and related technical personnel.

### B. Field Trials Officers

4. STRC should attempt to add one or two bi-lingual FTOs to its staff, particularly for the Fransphone countries. When this is feasible, FTOs should be re-assigned to stations in homogeneous geographic regions where the most effective logistical support can be arranged.

5. STRC, through the proposed Executive Committee, should urge each participating country to designate a trained agricultural technician to serve as its Field Trials Officer in liaison with Project J.P.-26 in the conduct of Regional Field Trials and related project operations.

6. The participant training program should take careful account of this requirement for individual country FTOs.

### C. Research Program-Dissemination of Results

7. PASA Team and IAR, in cooperation with IRAT and IITA should devise, based upon latest research information available, a package of crop production practices for each cereal - sorghum, millet, and maize - in the principal ecological zones of Central and West Africa for the information and use of extension specialists and farmers.

8. The STRC/OAU Publications Bureau in Niamey should expedite distribution of the planned bi-lingual "Quarterly Cereals Bulletin", the first issue of which is anticipated in July, 1973.

9. Until the STRC Quarterly Cereals Bulletin is actually in print, the STRC Coordinator's Unit with help of FTOs should organize full distribution in English and French of the J.P.-26 Project research results currently reported in the IAR Samaru Newsletter.

10. The STRC staff should include one French-English translator with a solid technical background in agronomy or general agriculture to help translate J.P.-26 documents and reports.

D. Administration, Logistical Support and Training

11. To provide necessary logistical support for the PASA Team, an administrative assistant should be provided through service contract or local or third country national employee. If this cannot be managed, an American administrative assistant should be added to the PASA team.

12. PASA Team and IAR should further explore with IITA and IRAT possibilities for a short term training course in French and English for national field trials officers and related participating country technical and research personnel.

## III. BACKGROUND

### A. Project Setting

During the 1960 decade food production in West Africa had been increasing at about the same rate as population and was generally sufficient to satisfy the food needs of the people at traditional nutritional levels. However, traditional technology was not adequate to meet the projected future food requirements of the area with population in West Africa increasing at an estimated 2.5 to 3.0 percent yearly.

Also, there was and continues to be a deep concern about nutritional quality of human diets. Plant and animal protein deficiency; as evidenced by widespread diseases and human body abnormalities and deformities is still serious throughout much of West Africa where starchy root crops characterizes the prevailing diets. An improvement in the quality and quantity of protein, if bred into new varieties, could supply higher quality plant food for the growth of children and the health of adults. Furthermore, the expansion of staple cereal production beyond human requirements would permit increased feeding of high-quality grains to livestock and poultry thereby also providing more animal protein foods.

The table below summarizes statistical data for 1967 and 1968 combined acreage and production for 14 of 16 countries (plus Guinea) participating in this Regional Major Cereals Project. At that time only a few trained scientists were engaged in plant breeding: for millet; only one each in Nigeria and Senegal; for sorghum, one each in Nigeria, Senegal, Niger and Cameroun; and for corn/maize, 2 in Ghana and one each in Nigeria, Ivory Coast and Dahomey.

TABLE I

Three Cereals Area and Production Totals For Fifteen West African Countries Combined

| | Sorghum/Millet | Maize |
|---|---|---|
| Hectares, 1967 (000s) | 16,327 | 2,329 |
| Production (000s)TONS | | |
| 1967 | 11,305 | 2,998 |
| 1968 | 11,577 | 2,994 |

More recently, the staple food situation in West Africa has been further complicated and badly aggravated by a series of consecutive drought induced crop failures culminating in the most serious famine in 1973. Recurrent crop shortfalls or failures were not uncommon here in the past but the 1973 drought is the worst in sixty years. Short and untimely rainfall patterns coupled and interacting with the gradual encroachment of the arid desert wastelands has caused widespread hardship, especially in the six countries of the Sahel zone, viz: Senegal, Mauritania, Mali, Upper Volta, Niger and Chad. Lack of water has parched the earth causing heavy livestock losses and vast areas of grazing land way be unusable for some years to come. Massive relief operations have been mounted by many nations and international organizations and hopefully the large stocks now

accumulated in central staging areas can be delivered to the villagers before they hoped for rains block off normal transportation routines. But even with these emergency measures, serious protein deficiencies in todays children may have sharply adverse effects in future years.

B. Previous History

The Regional Major Cereals Project continues a coordinated research and testing program that has been assisting West African countries to realize the potentials offered by the latest scientific advances in breeding techniques for high-yielding and protein-rich varieties of sorghum, millet, and corn.

This new project for the period FY-1970 - FY-1975 is both an intensification and expansion of the Major Cereals Regional Research project in Africa which had been funded during FY-1964 - FY-1968 under the development research activities of AID's "War on Hunger" office and the original 1963 PASA agreement AID/Res 20 between AID and the Agricultural Research Service of the U.S. Department of Agriculture, USDA/ARS. In FY-1969, the original project was split into two projects one for West Africa and one for East Africa, both funded by the Agricultural Division of the Bureau for Africa.

The major emphasis of the earlier major cereals project, FY64-68 was upon basic and adaptive crop research. Since the first phase research component produced results by developing and introducing new varieties of sorghum, millet and maize, the emphasis of the new project was upon further development and strengthening of the crop research capability of the cooperating research body in Nigeria, the Institute of Agricultural Research (IAR) at Ahmadu Bello University (ABU) in Samaru, and the Federal Department of Agricultural Research at Moor Plantation in Ibadan; expansion of field trials; and stimulation of adaptive research within the other participating countries. The research accomplishments of this project in the early years starting 1964 and the examples elsewhere of recent break-through in cereals production in Mexico, the Philippines, Vietnam, Turkey, India and Pakistan had strengthened the probabilities for similar dramatic break-throughs in West Africa.

In the past, many countries carried out independent crop research without adequate conditionsand resources. Many of the research problems are similar and with each country trying to do the job alone, the result is costly and duplicated effort.

Another important emphasis of the new project was to further strengthen the Scientific Technical Research Commission (STRC) an agency of the Orgarization for African Unity. In carrying out the coordinating role in cereal crop research in West/Central Africa, STRC has been involved since 1963 when Major Cereals Research was officially accepted as a project of STRC at a meeting in Lagos of representatives of the cooperating or participating countries. The new project marked a special effort to increase African participation in the project by the funding of an "effective" STRC Coordinator's Unit with an African as Coordinator. Before FY-1970, the head of the USDA/PASA team had been the Coordinator.

An additional element in the new project which had been seriously lacking in the earlier phase was the specific funding for participant training in order to assure continued African participation in future years.

The technical assistance in research provided under the PASA agreement between AID and USDA signed 1967, included two USDA scientists specializing in sorghum breeding and plant pathology. A second plant pathologist was stationed at Moor Plantation in Ibadan in 1965 and an entomologist and soil scientist joined the staff at IAR, Samaru in 1966. Under the new project, the addition of three field trials officers (FTOs) was planned in FY-1971 and a seed production specialist shortly thereafter as explained in further details in Parts IV and VII of this report.

## IV. Project Funding, Staffing, and Resources

### A. U. S. Contribution

The U. S. financial contribution is summarized below both for prior years FY'63 - FY'69 and FY'70 - FY'75 as projected until the anticipated termination of AID assistance at June 30, 1975.

TABLE 2

AID Financial Contribution
($000)

| | TOTAL AID |
|---|---|
| TOTAL | $4,067 |
| A. FY'64 - FY'69 period | 1,222 |
| B. FY'70 - FY'75 period (program estimate) | 2,845 |
| 1. Technical Personnel Services | |
| a) USDA/PASA Team | 1,080 |
| b) Field Trial Officers (FTOs) | 540 |
| 2. Participant Training | 223 |
| 3. Commodities | 163 |
| 4. Other Costs | |
| a) Local expenses for PASA Team and participants | 570 |
| b) Support of STRC Coordinator's Unit | 204 |
| c) Other local expenses | 65 |

At project start up in FY 1964, two USDA scientists specializing in sorghum breeding and/plant pathology were assigned to the headquarters station at IAR-ABU. A second plant pathologist was stationed at Moor Plantation in Ibadan in 1965 and an entomologist and soils scientist were added to the staff of IAR, Samaru in 1966. The USDA team increased to six in 1972 with the assignment at IAR-Samaru of the seed production specialist who also has now assumed duties of team leader. Previous team leader and USDA cereals breeder departed March 1973. The two positions temporarily vacant, the cereals breeder at Samaru and plant pathologist at Ibadan, are expected to be filled within a few months.

As seen in the table, the contribution to personnel services includes logistical support of the three Field Trial Officers, described further below, for housing, office furnishings, vehicle and miscellaneous local expenses.

AID commodity support for the USDA team includes vehicles, office furnishings and supplies, and laboratory supplies and equipment. As observed by this evaluation, the offices and laboratories of both PASA team and the staff of IAR are well organized and equipped and there have been no apparent problems or difficulties impeding the effective use of AID furnished supplies and equipment.

B. Nigerian Government

Nigeria acts as the host country, providing land, buildings and office space both a the Federal Department of Agricultural Research, Moor Plantation, Ibadan, one of the countries leading Nigerian research centers the past 25 years and the Institute of Agricultural Research at Ahmadu Bello University in Samaru which serves as the project headquarters.

IAR, is the main agricultural research facility in Northern Nigeria, is a legal entity separate from the university but it and the Faculty of the College of Agriculture have been coordinated into a unified working organization. The organization and operation of IAR/ABU are similar to these aspects of U.S. land-grant universities. The IAR organization for research and administration includes four departments: Plant Science, Soil Science, Animal Science and Agricultural Economics.

The six State Governments of Northern Nigeria provide the principal financial base for IAR which has received some external assistance from several sources other than USAID, as detailed below in Part III D.

C. STRC and Participating Countries

The STRC arm of OAU is important organization headquartered in Lagos which itself has regional offices in Africa as follows:

1. Inter-African Bureau for Soils and Rural Economy in Bangui (6 employees).

2. Inter-African Commission for phyto-Sanitation in Yaounde (13 employees).

3. Inter-Africa Commission for Animal Health and Livestock Production in Nairobi (20 employees).

4. Inter-African Bureau for Scientific and Technical Publications in Niamey (7 employees), and

5. Scientific, Technical and Research Commission in Lagos (38 employees, with 5 vacancies to be filled).

Of the $3.8 million OAU budget for 1973, $700,000 was earmarked for STRC in support of the above regional offices and the following joint projects under STRC/OAU sponsorship

J.P. 155 Rinderpest Project Coordinating U.S., British and German assistance.

J.P. 26 Major Cereals Project with U.S., French and British assistance.

J.P. 27 African Medicinal Plants, based Ife University, Nigeria.

J.P. 28 Bovine Pleuro - Pneumonia Project.

J.P. 29 Quarantine Stations and Training Centers for Phytosanitary inspectors in Africa.

While STRC has full support of the parent organization OAU because of pressing need for food crop production in participating countries and the urgent requirements for training scientists and technicians (e.g. 95% of West African research workers are expatriates), its budget is spread thinly over a large group of activities cited above. Therefore, AID is now providing funds for maintaining the Coordinator's Unit in STRC with its African chief serving in the key post of Project Coordinator.

STRC employs its regular staff for fulfilling its various project responsibilities such as facilitating entry and travel of PASA scientists; publishing reports on progress, findings and results; sponsoring seminars; assisting in the selection of training candidates, etc. Another staff member, supported by AID funds under the project, has been assigned to the STRC/Lagos office to assist the PASA Team in day-to-day dealings with Nigerian authorities, particularly in expediting release of project commodities from Customs, a function performed by USAID/Lagos before the project became independent of such logistical support. Under current project agreements, STRC undertakes to seek ways of contributing a larger share toward operations of the Coordinator's Unit.

Participating countries provide land and personnel for conducting field trials; offices for the respective Field Trials Offices headquarters; and land facilities, and staff for pilot seed multiplication operations at selected sites in Niger, Chad, Upper Volta and Nigeria.

D. Other Donor Assistance

Britain and France are defraying the basic salaries for the Field Trial Officers (FTOs) with AID covering household, transport and related allowances, Two French FTOs have been in the field since the fall of 1971 stationed at Dakar and Yaounde; one British FTO has been working almost a year in Kano and a second British FTO is expected shortly in Accra.

The project also benefitted from external assistance to IAR, valued at roughly $400,000 for the period FY'61 - FY'66. The main sources were Rockfeller Institute which financed staff salaries, housing, equipment and work buildings for cereals research and the Ford Foundation which financed staff salaries, housing and equipment for rural economy research. Sizeable contributions were also made by the U.K. Freedom From Hunger Campaign for the new laboratory block at Mokwa and the U.K. Ministry for Overseas Development which contributed salary supplements and Nigerian training to support research projects. Two smaller contributions were made by UNICEF for equipment for aflatoxin research and Netherlands Technical Assistance for senior staff salary supplements.

## V. PROJECT PURPOSES AND GOALS

### A. General

The Major Cereals Project, as conceived in 1963 and initiated in 1964, encompassed both east and west Africa. The three major objectives were: (1) cooperation with research institutions in Nigeria, Uganda, and Kenya to enlarge and provide additional support to research programs designed to increase production of the major cereals in Africa; (2) to stimulate and sponsor cooperative research on all aspect of cereal crop production throughout the area; and (3) to provide in-service training at the headquarter stations, to individuals sponsored by their respective governments.

In FY 69, the Major Cereals Project was divided into an eastern and a western segment. Funding for the eastern region was shifted from AID/TCR to the Agriculture Division of the African Bureau. The latter Bureau also assumed responsibility for funding the western segment, effective July 1, 1969. Sixteen West African countries cooperate with this program.

The current basis for the Major Cereals Project of West Africa is provided by the Grant Agreement between USAID and the Scientific, Technical and Research Commission (STRC) of the OAU. The purpose of this grant is to assist the grantee, STRC, in the establishment and development of a coordinated research, testing and multiplication program for staple food grains and training of a cadre of agricultural research scientists in Central and West African States.

In its FY 1973 Project Appraisal Report or PAR, submitted by the AID RDO office at Niamey in compliance with prescribed AID/Washington project management procedures, the project purpose was stated as follows:

1. To strengthen the applied agricultural capabilities of 16 West African countries within a regional framework and systems established by the STRC/OAU.

2. To develop, disseminate, and multiply high-yielding, disease-resistant, protein - rich staple cereals varieties - corn, millet and sorghum.

The PAR also stipulated the program goal as follows:

> To increase the quality and quantity of staple food crops available to the rapidly increasing population of West African having only limited natural resources.

In terms of the evaluation procedures for the preparation of the regular annual PAR for current on-going AID projects, the program or sector goal is the higher purpose or desired end toward which the main efforts of AID and the cooperating countries are directed.

For use in PAR submissions in future years, a Logical Framework Matrix which summerizes the main project components and shows the relationship between project inputs, outputs, purpose and goal, is included in this evaluation report as Appendix B. The AID Project Manager, in consultation with other project officers, may wish to revise or modify this Logical Framework Matrix before preparation of the next PAR submission in FY 1974.

Under regular AID evaluation procedures, "outputs" are the major kinds of results that are expected from good management of project inputs or resources. In the discussions below "outputs" are generally referred to "objectives" in order to provide the evaluation team members with a convenient reference to a basic project document, the PASA agreement between AID and USDA/ARS, which lists the major activities undertaken as "objectives."

B. Major Project Components or "Outputs"

Under the Grant Agreement, AID finances these main components.

1. Technical services - supplied through an agreement with the U.S. Department of Agriculture.

2. Commodities - such as equipment for seed testing, multiplication, and research laboratory equipment.

3. Training of African participants.

4. Costs of a Project Coordinator's Unit in the STRC.

5. Support cost of Field Trial Officers (FTO)

In evaluating the Major Cereals Project, the team strongly feels it is now desirable to review the targets and objectives of each of the component parts of the project, namely PASA team, STRC and FTOs. It should be noted that targets and objectives for each component are distinct. The evaluation team found that the respective responsibilities have at times been confused and misunderstood.

With respect to technical services, the most recent Participating Agency Service Agreement available is dated December 23, 1971, and lists the following objectives for the USDA team:

1. Select and develop local and foreign germplasm for millet, sorghum, corn and pulse for high yield, high protein content, disease resistance, and adaptability to the different ecological zones of cooperating countries in West Africa.

2. Ascertain scientific, cultural and management techniques for millet, sorghum, corn and pulse crops with recommendations to be published for the extension services of cooperating countries.

3. Cooperate with existing research organizations and institutions of cooperating countries in applied and basic research on referenced crops, and to give assistance and guidance to their staff in their work on these crops.

4. Conduct field trials of selected and developed high yielding millet, corn, sorghum and pulse crops in the different ecological zones of cooperating countries.

5. Start a seed multiplication program of developed and selected adapted high yielding, portein rich, disease resistant varieties acceptable to local consumers and approved for consumer acceptance by cooperating countries.

6. Strengthen research institutions and organizations by selecting participants for training in the U.S. and Canada and providing them short term in-service training at Samaru and Ibadan prior to their departure.

7. Each PASA member technician shall have one or more local counterparts, if possible, in his respective speciality to strengthen the institutional building element of the program for program continuity after PASA phaseout.

With respect to the Project Coordinator's unit in STRC, the grant document states "The coordinator is responsible for liaison between the PASA team, the research stations and the participating states and will coordinate the recruitment and selection of African scientists to be trained and assist in the preparation of conferences. He will also be responsible for the coordination of field trial and seed multiplication activities and their coordination with local research and extension organization in the states."

The major activities expected of STRC in assuming the responsibility for the overall coordination of the program are listed in the grant agreement as follows:

1. The provision of a competent African scientist to act as the coordinator of this project.

2. The facilitation of the entry and travel of the AID technicians among and within the participating and other interested states in the performance of their duties and the accordance of the privilages and immunities normally granted to U.S. Embassy personnel of comparable rank and status.

3. The dissemination of information of the progress to its members on a regular basis through the Soils Bureau Bulletin, publications issued by the Grantee, and other means such as the extension services of each participating state.

4. The sponsoring of seminars in cooperation with AID and the PASA team to discuss the progress of this project and other activities in related fields. The Grantee will assist in financing delegates to these seminars from the coordinator's unit fund provided under this agreement.

5. The recruitment and selection of scientists for training under this program.

6. The encouragement of its member countries to carry out adaptive research, field testing, training of personnel and to improve their scientific and administrative capabilities in this area.

7. The encouragement of member states in a seed multiplication program of certified seeds.

The Field Trial Officers, who report to the Project Coordinator, STRC, are assigned the following principal responsibilities:

1. The establishment of regional trials, within assigned areas, for millet, sorghum, maize and pulses.

   (a) Trials of varieties and experimental lines best adapted to the region concerned.

   (b) Trials of cultural practices such as plant density, and time of planting

   (c) Trials of quantity and type of fertilizers needed for optimum yields.

   (d) Prepare crop management recommendations to be published for

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2. The assembly of data from experimental plantings and the preparation of periodic reports in both English and French. (These reports should be submitted to the Project Coordinator, STRC, for distribution to participating governments and agencies.)

Secondary responsibilities of the Field Trial Officers are:

1. To assist in any way possible in the development and improvement of organization, procedures and facilities for the production and distribution of improved and adapted seeds.

2. To assist local research and extension staff in the development of effective procedures for the dissemination of research findings and the adoption of new agricultural practices by farmers.

## VI. PROGRESS ACHIEVED

The goals and objectives of the West Africa Major Cereals Project are listed in a previous section. To permit an effective evaluation of the rate of progress, the team attempted to examine individually the "outputs" or "results" expected from the several components of the project. The progress of the technical services component will be discussed first.

### A. USDA/PASA Technical Services

At the outset two general observations are essential. (a) Although a number of the listed objectives cite research on pulse crops in addition to the Major Cereals crops, the team was informed that the plans to initiate such research were never activated or funded. Evaluation therefore, will be confined to research with sorghum, millet and maize. (b) The research program of the USDA "PASA team" is so closely cooperative and integrated with that of host organizations, namely, the Institute for Agricultural Research, Zaria, and the Federal Department of Agricultural Research, Ibadan, that it would be impractical, if not impossible, to evaluate accomplishments only of the PASA personnel. As illustration, within the area of plant breeding, the PASA project breeders in recent years have been more involved with maize than sorghum or millet. This has been due largely to the fact that IAR has had breeders specifically working on sorghum and millet and none working on maize. Sorghum and millet breeding programs at IAR, however, have received both financial, commodity and advisory support from the project. The project maize breeding program at Samaru has been conducted in close cooperation with the IAR program at Mokwa, and the Western State, Federal, IITA and JP-26 breeding programs in Ibadan.

The development of improved varieties of the major cereals concerned, the first cited objective of the technical services, has progressed reasonably well, with notable new breeding and developments in maize; significant but slow progress in sorghum; and comparatively less progress in millet.

In sorghum, breeders have identified shorter, earlier, insensitive to photoperiod hybrid varieties that give 2 to 3 fold increases in yield in the Sudan zone when grown with the recommended cultural practices. The highest yielding varieties presently available are unacceptable in seed color and texture, but the breeding of varieties with similar yields and acceptable quality has now been completed. Although the short, early varieties have been found to also increase production in the Guinea-Savana zone, the relatively longer rainy season there makes their production impractical.

If planted at the beginning of the rains they mature before the end of the rainy season and seed quality deterioriates rapidly. If planted midway during the rainy season, there is danger that insects and diseases and leaching of nitrogen will drastically limit yields. Local tall varieties improved through selection have been developed and released for both the Northern Guinea zone and the Southern Guinea and Riverain areas. Several varieties adapted to the Northern Guinea zone have been developed and are being subjected to final tests.

The millet breeding program centered at Kano, which has recently graduated into a large program, is presently not as advanced as the sorghum program. Lapses in staff assignments were contributing factors. Nevertheless one variety (Ex Bornu) was released which yields significantly above farmers' varieties. Varieties with major yield increases cannot be expected for two years. The team was well impressed by the millet improvement program conducted at Bambey, Senegal by IRAT in which they are attempting to restructure the millet plant and thereby increase the grain/straw ratio. Different improved millet varieties are being simultaneously developed for the main ecological zones within the country.

The discovery of a higher yield potential of newly developed maize composites in the Northern Guinea zone than was formerly expected probably offers the greatest opportunity for a major increase in grain production in West Africa. Composites and hybrids have been developed which when planted at the right time with proper fertilization, and weed and pest control have given yields as high as 8,500 lbs/acre in experimental trials, and 4,500 lbs/acre in farmer fields when fertilizers and other improved management practices were used. Three new composites, one white and one yellow seeded hybrid will be ready for release in 1974. Maize has a greater potential for responding to improved management practices and fertilizer than does sorghum. Further, short season maize which matures before the end of the rains suffers less deterioration in the field through bird damage than does short season sorghum.

The PASA team maize research conducted in cooperation with the Federal Department of Agricultural Research at Moor Plantation and USAID/Nigeria maize breeder at Western State has made significant contributions. A variety having increased root strength was developed; also two genetically broad based composites carrying genetic resistance to two serious diseases, rust and blight. These composites now form the basis of the maize improvement program conducted by IITA, Ibadan.

Research on genetic resistance of sorghum to diseases is also yielding results. From some 4,000 lines first screened in 1970, for susceptibility to Striga, about 150 have continue to show resistance. Incorporation of this resistance into the West Africa Bulk composite has been initiated with the intent of developing a striga resistant composite.

The reactions of over 8,000 sorghum lines from the world sorghum collection to a number of diseases has been determined since initiation of the project. In addition to striga resistance, resistance to leaf diseases, such as sooty stripe and grey leaf spot has been found and is being bred into new varieties. A determined effort is being made to find resistance to head mold, a disease particularly severe when sorghum matures under wet and humid conditions. Seed of the better lines has been sent to Senegal. Resistance has also been found for covered smut, loose smut, and head smut.

High types of resistance to downy mildew, smut and ergot have been found among several thousand millet lines which were screened for reaction to these diseases. Seed of resistant lines has been sent to Senegal, Niger and Chad for further testing this year. These lines are being evaluated for yield in Northern Nigeria and selected lines will be composited to form a new disease-resistant early maturing variety next year.

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Resistance to insect attack also has been found in sorghum. Primary and recovery resistance to the major species of shoot fly have been isolated and are currently being established in the breeding program. Although high types of genetic resistance to stem borers and the sorghum midge have not yet been found, safe chemical control methods have been developed for one species of borer and the midge.

With respect to the second objective, development of cultural and management technologies, some degree of progress can be reported. With respect to fertilization, production of 5,000 to 6,000 kg/ha of maize in the Northern Guinea zone requires application of 100 to 150 kg/ha of nitrogen fertilizer. As phosphorus is not readily fixed by soils of the savanna ecological zone, relatively low rates of phosphate fertilizer are required. With intensive cropping for several years it has been established that potassium and zinc become limiting factors for cereal production and must be supplied.

With respect to method of planting and tillage, flat cultivation has been determined to require less labor and results in less erosion than ridge cultivation. Whereas plant populations of early, short season types of sorghum and millet must be increased for optimum yields, the long seasoned, tillering varieties compensate for differences in stand and give little benefit from increased plant density.

Date of planting studies of cereals show pronounced reduction in yield as planting is delayed after the rains have started. This effect has been established to result from heavy leaching of nitrogen prior to the critical flowering and grain formation periods of the plant following delayed planting.

Although considerable information has been accumulated from research on soil and management practices, the team was not assured that this information in proper form had been widely and systematically made available to extension services of all cooperating countries. (See recommendations).

Relative to the third objective, cooperation with existing research organizations, significant progress was noted. In fact, if the evaluating team were to select the most outstanding accomplishment of the PASA group it could readily be the stimulation and improvement in communication between cereal research personnel in West Africa. Of particular significance is the removal of the communication barrier between the Francophone and Anglophone countries. The exchange of germplasm with special genetic attributes is a second accomplishments. Numerous instances were noted of distribution of types resistant to insects and diseases, of types with special morphological characters such as dwarfness and of types carrying genetic or cytoplasmic sterility and early maturity.

Still another but less obvious type of cooperation and assistance was noted. The recent more effective system of plant breeding used extensively throughout West Africa was ushered in by project breeders. It consists of the development and improvement of two broad based composites through recurrent selection. After each cycle of improvement a commercial hybrid variety can be produced. In areas where hybrid production is not yet feasible, the parental composite varieties can be grown for commercial production.

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The system thereby provides maximum flexibility. It also permits continual improvement of the composites, as well as of the hybrids between the composites for many cycles. The development and dissemination of information regarding this effective and flexible breeding system has greatly improved and hastened the development of superior varieties of cereals in West Africa.

The fourth objective, relating to the conduct of field trials, has been met to some extent. Regional variety trials were conducted during the past 2 years as follows:

| Regional Trials | 1971 | | 1972 | |
|---|---|---|---|---|
| | No. Locations | No. Varieties | No. Locations | No. Varieties |
| Sudan Savanna Sorghum | 8 | 12 | 7 | 10 |
| Guinea " " | 6 | 13 | 5 | 8 |
| Millet | 7 | 6 | 5 | 8 |
| Maize | 9 | 8 | 7 | 11 |

These regional trials permit the research workers of various research institutes to see other potentially good varieties grown in comparison with their own. They also show the adaptation of the varieties within different zone. Unfortunately however, the data on yields often do not clearly portray the potential productivity of the varieties under test. Lack of uniformity in soils and distribution of available moisture supply often lower precision. Of still greater importance is differential damage to sorghum and millet by birds. The relatively small plots are particularly vulnerable to severe destruction even by light concentrations of birds. When maturity of varieties coincides with bird migration, complete distruction may result. At times bagging of heads may be a useful means of determining yield potential. As the field trial officers become more experienced and better equipped logistically and more FTO's added perhaps it is hoped they can observe the regional trials more frequently and thereby assist in increasing the validity of data collected thereon.

The fifth objective, that of starting a seed multiplication program, was initiated only in October 1972. Seed production studies were planned at 9 sites during the 1972-73 dry season but results are not yet available. The objectives of the program are:

1. To increase breeders seed supply of sorghum and maize varieties, sorghum steriles and restorer lines.

2. To obtain seed production data pertaining to blooming time, pollen shed, reaction to photoperiod, temperature and relative yields during a part of the dry season.

3. To produce, test and demonstration plot quantities of hybrid seed of sorghum and maize.

4. To locate and help develop interested seed producers.

Although the dry season would seem to pose certain advantages for seed production such as low incidence of diseases, insects, and contaminating pollen and higher seed quality, seed production during the rainy season will also be studied. This period will be of

particular importance for seed production of photoperiod sensitive varieties. After effective seed production systems have been developed there remains the problem of developing or improving seed production organizations within the countries. This problem is particularly acute because of the lack of any indigenous or local seed companies who can take advantage of the recent developments for a quick take off.

With respect to the 6th objective, that of providing participants with training in the U.S. and Canada and in-service training at Samaru and Ibadan, funds became available for overseas training only in 1970, Eight Nigerians are now working with the project at Samaru each of whom has had some overseas training (some funded by organizations other than USAID). Five of these are doing thesis research for or already have completed the M.S. and 3 received "no-degree" training. Only one non-Nigerian, from N. Cameroun, has received in-service training at Samaru. The major obstacles to providing in-service training to non-Nigerians are (1) lack of housing at Samaru, and (2) language barrier of trainees from Francophone countries. Unless a solution to these obstacles is realized, this objective cannot be attained for non-Nigerians.

B. Participant Training Program

The Program Manager is convinced that training is of prime importance as a component of this project. The evaluation team concurs in this conviction and regrets that formal training could not have been initiated at an earlier date. The Program Manager has vigorously pursued the training aspects and is personally interviewing the candidates. He informed the team he has 53 applicants and hopes to fund approximately 30 in 1973.

The team is convinced that the seventh objective, which stipulates that each PASA technician have one or more local counterparts, is of prime importance. Presently the members work closely with staff members of IAR. A number of these staff positions are held by British scientists and supported by Britain's Overseas Development Administration. The team was told that ODA is reducing its support and many of these staff members will be lost to IAR. This prospect makes the training of Nigerians a particularly critical issue. On the scheduled termination date of the PASA, June 30, 1973, not only will there be a limited number of Nigerians trained, but they will be woefully lacking in experience.

C. STRC Coordination Unit

STRC, as spelled out in the grant document, was envisaged to serve an extremely important role in the coordination of the overall Major Cereals Project. A special coordinator's unit was established to service the project. A number of responsibilities assigned to the coordinator have been conducted in an effective manner. The team learned that STRC had (1) cooperated in sponsoring seminars; (2) translated and distributed reports of seminars in 1965,1967 (not held but written report prepared). 1969 and 1971 (in process); (3) cooperated with the project manager in recruiting and selecting trainees in member countries outside of Nigeria; and (4) facilitated inter-country travel by AID and USDA personnel through assistance in obtaining visas and related problems. However, a number of other important functions have not as yet been undertaken. These include dissemination of information on research progress to and among member countries, encouragement of member countries to carry on adaptive research, field testing and seed multiplication, and coordination of field

trials and seed multiplication activities with local research and extension organizations. In fact, there has been little contact on technical or operational matters between the STRC coordinator's unit and the Field Trial Officers or the PASA team. The evaluation team believes that strengthening of the coordinator's unit is of great importance to the success of the project. STRC must, in fact, shoulder the responsibility for all aspects of the regional coordination of the research, development, and educational phases. There is no alternative coordinating body. The need for strong coordination by STRC will be accentuated when the PASA terminates in June 1975.

D. Field Trial Officers

The evaluation team believes that the Field Trial Officers could and should become a strong outreach of the STRC coordinator's unit. Presently their activities are limited to trials of promising cereal varieties. In some cases the region they serve is too large to permit the required activities and observations in all countries. In the interest of increasing their effectiveness their activities should be expanded to include (1) field trials of management practices, such as plant density, pest control and cultural methods as well as variety trials, (2) strengthened contacts with counterparts in each country to facilitate conduct of tests, (3) strengthened liaison with extension services within the countries to provide a mechanism of transmittal of research findings to the farmers, and (4) greater involvement in assisting countries to multiply seed of improved and adapted varieties.

E. Need For Multi-Discipline Effort

Certain questions have been asked regarding the composition and specific operations of the PASA team. Are the disciplines represented in the team appropriate; should any be eliminated or added? The team feels that with the replacement of the breeder at Samaru, that team will be of proper balance as related to cereal research of the team and IAR. The development of superior varieties and hybrids must be of a continuing nature to cope with biological changes in pests, environment, etc. A full complement of relevant disciplines is required for such development. As illustration, changing the structure of the sorghum plant in the Sudan to short types requires research on plant density (short types will not compensate for gaps in stand), on weed control (less shading stimulates weeds), on disease and pest control (the dense, short stand alters the micro-environment among the plants and may favor build-up of diseases and insects), on fertilizers (denser plant populations may require more fertilizer), etc. It is readily apparent that elimination of any of the disciplines would lower effectiveness. It is also obvious that a coordinated and integrated team effort is highly necessary.

Should research be shifted from "basic" to "applied" research? The team believes that this type of delineation is not meaningful. All of the research conducted is "problem oriented" whether it requires a sophisticated technique on whether routine operations are adequate. So long as the research findings are useful in attaining a necessary objective, they is entirely appropriate.

## VII. ORGANIZATION, MANAGEMENT, AND TRAINING.

### A. Scientific

One of the two principal purposes of this project is to "to strengthen the applied research capability of 16 West African countries within a regional framework and the systems organized by STRC/OAU". An important function or "output" of this J.P.-26 Project, through the coordinated efforts of USDA/PASA, STRC staff and Field Trials Officers, is the stimulation of food crop research in Africa.

In the interest of encouraging and sponsoring cooperative research, the PASA team of scientists endeavored to supplement and strengthen on-going research activities. Therefore operational procedures were adopted to encourage and develop local cooperation to the maximum degree possible and in this context to establish new research activities in those subject matter areas which had in the past been receiving limited research emphasis.

At this point, very good relationships appear to exist between the PASA team and IAR. Similar to the manner in which IAR as a legal entity separate from ABU has been coordinated into a unified functioning organization, the PASA Team members are integrated into structure of both the two Nigerian bodies; they attend committee meetings,deliver occasional lectures, supervise selected theses research and preparations and serve as senior staff advisors. This high degree of multi-discipline cooperation and complimentarity has been mutually advantageous for both J.P.-26 and IAR. It is through the PASA Team of J.P.-26 that IAR has initiated contacts with various national and regional research bodies in the area.

### B. Project Management

As noted previously, J.P.-26 under the basic agreement between AID and STRC/OAU is a regional, multi-donor project involving 16 participating African countries and the management relationships are correspondingly complicated.

#### 1. AID

AID supervises the project through its Project Manager at the Regional Development Office in Niamey, Niger which is responsible for the Bureau for Africa's field operations, mainly in the five Francaphone countries of the Entente Council. Considering the logistical difficulties, the AID Project Manager has maintained close contact with all project elements, and has travelled extensively among cooperating countries, often accompanying the STRC Project Coordinator in the development and implementation of the participant training program in these respective countries. However, communications, transport and travel connections between Niamey, Lagos, and Samaru are extremely cumbersome and time-consuming and so the decision was reached to transfer the Project Manager's duty station to Lagos at the end of June, 1973.

The evaluation team welcomes this transfer and believes it will support and strengthen STRC's role in the project and immensely improve coordination between STRC, PASA Team, FTOs and cooperating countries.

The evaluation team has observed that USAID Missions and Offices in the area, primarily because of the current AID emphasis on food crop production, are interested and generally aware of project developments, particularly where FTOs are stationed as in Senegal, Nigeria, and Cameroun. Use of USAID mail and distribution systems has on occasion been very useful in the transfer of test seeds and other project materials.

2. STRC/OAU

Under the current phase of J.P.-26, i.e. the period FY-70-75, special importance is accorded STRC's role in coordinating cereals research in West Africa. A specific Coordinator's Unit was established in STRC, headed by the Project Coordinator, a function previously performed by the USDA/PASA team leader at Samaru. As detailed in Part VI, a number of important responsibilities have been effectively performed but certain important functions have not as yet been undertaken by this Coordinator's Unit.

As shown in Part IV, STRC/OAU is a fairly large African organization with regional offices in five countries including the headquarters at Lagos and is currently sponsoring five major projects in addition to other on-going activities. The Project Coordinator for J.P.-26 also serves as STRC/OAU Assistant Executive Secretary with widespread duties and therefore is able only to devote limited time to J.P.-26. In fact, there is only one full time employee in the office for J.P.-26, the Shipping Manager, who provides essential support to the USDA/PASA Team in clearing deliveries through Customs, registering vehicles, handling correspondence and other dealings with USAID, and Nigerian Government, and providing various similar services.

In view of this situation, the evaluation team makes the following recommendation which it regards as one of the more significant ones, particularly in view of the need for a much more active STRC coordinating role when AID assistance terminates in FY 1975: A bi-lingual agronomist or other trained agricultural specialist should be added to the staff of the STRC Coordinator's Unit as soon as possible to coordinate at the technical and operational levels the activities of PASA, FTOs and project seed multiplication centers. In this capacity, he would be in contact with participating country Director's of Agriculture and related technical personnel of both national and regional organizations. He might also serve as the Secretary for the Executive Committee on Research and Training discussed below.

This proposal has been discussed with the STRC Project Coordinator who supports it and feels OAU headquarters may be able to make a budget allocation for this STRC post.

3. Field Trials Officers (FTOs)

The technical and financial aspects of the Field Trials Officer operations are detailed in Parts IV and VI of this report.

The evaluation team is impressed with the technical competence, broad agricultural interests, and industry of the FTOs and believes they have made an important contribution to project proposes, through frequent personal visits, distribution of bi-lingual reports and documents and materials, and expediting the transmission of test seeds and supplies. These FTO activities have re-inforced and extended the contacts earlier initiated by J.P.-26 with the national and regional organizations. Over the next two years, the FTOs should develop effective liaison with the seed testing, seed multiplication, and extension services of the respective countries.

Thus far, the FTOs have been hindered by lack of close contact with the STRC Coordinator's Unit. Also, there was some concern expressed because there appeared to be variance in the responsibilities undertaken by the respective FTOs so that they do not uniformly or consistently conform to the operational work guidelines as established by STRC, copies of which were made available to the evaluation team by AID/W. Since local circumstances vary greatly within the countries of West Africa, the evaluation team did not see this as a serious problem. Nevertheless, the team recommends that one of the first tasks of the STRC Agronomist, when appointed, should be to consult with FTOs, review their operations, and where actually necessary, revise or modify the "Operational Work Guidelines."

It was quite clear to the team that some of the FTOs are expected to cover too wide a geographic area, especially the FTO stationed in Senegal who is currently responsible for Gambia and eight Francaphone countries. The team therefore recommends that STRC discuss with FAC, the French Government AID administration, the possible addition of at least one but preferably two bi-lingual FTOs. If and when this materializes, the STRC Project Coordinator should consider modifications in the country assignments of the FTOs so that each FTO station would be in a region geographically homogeneous and most effectively managed in terms of travel convenience, logistical arrangements and related management considerations.

In this context, a serious effort should be initiated to have each participating country designate, as soon as practical but during FY 1975 at the latest, a trained technician to serve as its Field Trials Officer in connection to the continued of J.P.-26 regional field trials and related project operations. This matter should be one of the key agenda items for the J.P.-26 Conference on Research Needs for Increased Cereal Crop Production. The requirements for country FTOs should also be carefully taken account of in the further planning of the participant training program.

During this study, the evaluation team had available only fragmentary information on the distribution of developed and released seed varieties or the extent to which farmers are aware of and use both newly developed and/local improved cereal varieties. We therefore, suggest that for the FY 1974 PAR exercise FTOs, with the help of the other project officers and LAR, should collect and summarize statistical data that could usefully serve as quantitative indicators of progress for the PAR submission.

4. USDA/PASA Team

The Seed Production Specialist is now the Team Leader and furnishes the administrative supervision and technical direction for the PASA Team members. As noted previously, the two vacant PASA Team positions should be filled shortly. Thus far, most team members have served several tours and there has been comparatively little turnover.

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Since the withdrawal of support from the USAID office in Zaria, the PASA Team encountered logistical support problems. There is an urgent need for this support to avoid an inordinate diversion of PASA working time on such logistical matters as supervision of vehicle operation and repair, travel arrangements and meetings planes and visitors at distant airports (e.g. Kano), communications with STRC, USAID, FTOs and seed multiplication centers, etc. In view of the importance of seed industry development and the need therefore for expanded PASA Team visits and contacts with regional research projects, institutions, and field stations, the evaluation team believes the administrative burden should be minimized as far as practical and therefore recommends the addition to the staff of an administrative assistant who need not necessarily be an American but might be supplied locally under contract or other arrangement deemed feasible by AID and STRC.

In its review of project operations, the team noted fairly clear awareness and understanding of project objectives on the part of STRC and the cooperating country representatives contacted but questions did arise in discussions with the PASA Team, mainly in relation to the seed production program. The USDA/ARS job description for the Seed Production Specialist covers a large assignment including research on seed production, storage, distribution and maintenance of breeder seed; liaison with seed distribution agencies; expansion of demonstration plantings and regional trials; and the provision of guidance and counsel on all matters pertaining to seed production and distribution problems. In this connection, the evaluation team was aware of a USAID suggestion that the PASA Team monitor the seed multiplication program in order to strengthen it. However, the evaluation team, recognizing that further discussion between USDA/ARS and AID might be needed on this point, suggests that the PASA involvement on stations outside Nigeria continue to be limited to advice, cooperation, close contact, guidance, and counsel but that coordination should be the responsibility of the STRC Coordinator's Unit working through its anticipated Agricultural Specialist and the FTOs, and that actual monitoring per se might more appropriately be a function of the AID Project Manager. The PASA Seed Specialist should, of course, be able to provide AID Project Manager and FTOs any required technical advice and expertise for these purposes.

With regard to other implications of AID "monitoring", suggest that the annual PAR review may be a suitable mechanism for reaching better understanding of overall project purposes and goals. PAR worksheets for U.S. Action Agents might be useful for reviewing performance of both PASA Team and FTOs. Since FTOs are under the direct supervision of STRC, the STRC Project Coordinator, or his designee, might be asked either to participate in the review or to submit a separate evaluation of FTOs in writing, perhaps both if circumstances permit. Even before another PAR review is scheduled, it might be useful to prepare a revised or modified Logical Framework Matrix, using any observations of this report which may by pertinent,

C. Participant Training Program

One of the most important objectives of the Major Cereals in West Africa (OAU/STRC J.P. 26) Project was the provision for in-service training at the headquarters station at Samaru and in Universities in the United States and Europe of individuals sponsored by the respective governments ofthe 16 participating countries. This training was aimed at facilitating the Africanization of the project staff by the training of counterpart personnel who would continue to work on the project after the PASA team have left in 1975. Consequently, funds were made available for training in FY 1970 for participants of the cooperating countries. For Nigeria, the arrangements concluded with Ahamadu Bello University envisaged the following conditions:

1. The University would have a voice in the selection of the candidate and in the course of study to be followed.

2. The candidate would spend some time as a technician to determine whether he has a real interest in research and to establish his acceptability to the research supervisor.

3. Following (1) and (2) the candidate would enroll at some U.S. or European University for a period of 12-18 months in a prescribed course of study. Following this he would return to the sponsoring research institution for the conduct of thesis research. This would ensure that thesis research has some relevance to the agricultural needs of the area.

4. The degree would be granted by the participating African University.

5. Upon completion of the degree it would be expected that the individual would remain in the research program of the country for some specified period.

The areas of specialization to be covered in the in-service participant training program are related to the areas of priority in the J.P-26 Project, namely plant breeding, entomology, soil science and plant pathology. It was intended that when the project was fully operational all the PASA technicals specialists would have students working with them as counterparts. This has been accomplished on a limited basis as seen in the table below.

Currently, AID Project Manager is responsible for making all necessary arrangements for the selection, interviewing, preparation of training specifications and locations of universities for selected candidates. He asks the PASA team for nomination of candidates.

Table 3

Counterpart Training

The current training program associated with the work of the PASA team at IAR and Ahmadu Bello University involves seven trainees as follows:

| Trainee. | Discipline | Date of Return |
|---|---|---|
| Adedewa | Plant Breeding (Maize) | July 1971 |
| Adeniyi | Plant Breeding (Maize) | August 1972 |
| Adeoye | Soil Science | June 1973 |
| Adesiyun | Entomology | June 1972 |
| Manzo | Plant Pathology | April 1972 |
| Sako | Plant Breeding | June 1972 |
| Usman | Plant Breeding (Sorghum) | June 1971 |

According to the AID Project Manager 20 trainees from participating countries have been already processed for training at various U.S. Universities. Another 53 candidates are now under consideration of which about 30 are likely to be finally selected in FY 1973 for training in the four priority areas indicated above.

Training Outlook

The training that has taken place at Ahmadu Bello University has, with the exception of one student from Cameroon, involved only candidates from the host country, Nigeria . Even in these cases, traininghas been so short that counterpart status had been achived for none of the position through 1969. No only students from the Francophone countries has received training at Samaru and the proposed dormitory for housing and feeding of non-Nigerian students was not built nor were facilities provided for training in the French language.

It can be justifiably concluded that despite the progress that has been made not enough specialists from the various participating countries would be trained to take over the work of the PASA team on the termination of the present contract in 1975. Even if all the students now being trained complete their training by that date not all the disciplines would be covered in most of the participating countries for relevant ecological zones.

A serious concern about the training scheme is the fact that although it is expected that those trained under theproject will work in it for a specified period, the few numbers of people involved and the shortage of staff in the participating countries would result in rapid loss of most ofthe technicians who are very likely to take up important administrative positions in the Ministries of Agriculture in the respective countries. It is surprising that even in countries such as Nigeria, it has been found difficult to recruit enough candidates for training.

Suggestions For Improvement

1. The proposed Executive Committee for Research and Training should provide STRC advice and guidance on training policies and criteria, taking account of the varying situations among cooperating countries.

2. The PASA Team and IAR should further explore with IITA and IRAT the possibilities for short term training courses in French and English for national field trials offices and related participating country technical and research personnel.

## VIII. FUTURE PROSPECTS

As seen in Part VII., J.P.-26 has already developed high yield new corn varieties and by FY 1975 should be in position to release high-yield varieties of acceptable quality for millet, and for sorghum, both long and short season for the Guinea and Sudan savanna zones. Together with these new varieties, J.P.-26 should also be in good position, in cooperation of other research group, e.g. IITA, IAR and IRAT, to disseminate for extension specialists and farmers, an integrated package of crop production practices for each cereal.

According to latest available information, the replacement cereals breeders for both IAR and the PASA Team, each having training and experience in both cereals although concentrating on sorghum and corn respectively, will be arriving at Samaru shortly. For the next two years, the IAR/USDA staff will consitute a complete and well-balanced inter-disciplinary group. At the scheduled departure of the USDA Team in FY 1975, IAR will still have a solid plant breeding staff and the loss of departing U.S. scientists in entomology, pathology and soils science could be offset to a degree by the Nigerian counterpart staff, however young and inexperienced, provided there is no significant attrition due to further study or transfer. If additional suitable candidates were available and processed quickly in the priority participant training fields including perhaps seed technology, any remaining gaps in IAR staff would be correspondingly less serious.

In this situation, the role of STRC still remains crucial. Although the broad research program at IAR could continue at only a slightly diminished level, IAR's responsibilities under its charter are limited to Northern Nigeria. STRC, which has been expected to provide the regional framework, still appears to be the most appropriate body but only if a small but full-time cadre of three officers is established in the STRC Lagos office, capable of providing necessary technical coordination and management. The establishment of the Executive Committee for Research and Training and the individual country FTOs will re-enforce the regional framework but a strong STRC commitment to leadership is the key factor for assuring continuation of the regional seed trials, dissimination of research results, and seminars. Under the FY 1972 Grant Agreement, STRC undertook to hire three agricultural researchers, one in FY 1973 and two before the end of FY 1975. The extent to which STRC can organize such a cadre of similar technical and management personnel will measure the success of J.P.-26 in institutionalizing regional cereals research in West Africa. It seems quite evident that solid national or sectional research programs will continue in several places, including IRAT/Bambey, IAR, Moor Plantation, and of course research for tropical Africa at IITA, Ibadan.

The evaluation team was aware that ICRISAT, the newly established international institute at Hyderabad, India for research on the main crops in the semi-arid tropics-sorghum, millet, chickpeas, pigeonpeas - is exploring possible cooperative working relationships with several outreach or "satellite" stations in Africa, such as IAR, Samaru and Bambey, Senegal. ICRISAT is familiar with J.P.-26 and its regional connections but its relations with the so-called "outreach" stations are likely to be largely of bi-lateral nature with the national or sectional (IAR) institutions concerned. A possible ICRISAT input at IAR (this is of course a matter of negotiation between the parties directly involved) would naturally strengthen the research programs there, for sorghum and millet, particularly after 1975. Even in that event, however, STRC would need to continue its coordinating role, if the regional character of cereals research were to be maintained.

In discussions with officials in Upper Volta and Chad on plans and prospects for seed multiplication and production, the evaluation team gained insights into the constraints on participating countries in the Sahel group in the use and exploitation of project research outputs for staple food crops, sorghum and millet, compared to commercial type crops, e.g. wheat, rice. These not unfamiliar constraints include subsistence character of production; poor bargaining position of cultivators vis-a-vis traders; lack of markets, storage, credit, transportation and foreign exchange for the purchase of inputs; inadequate extension services and other infrastructure; tight national budgets, etc. Clearly these are formidable obstacles. Several countries have made various attempts to confront these problems thru price stabilization programs, semi-public corporations, development organizations and other kinds of government intervention in the normal trade and market structure with rather disappointing results thus far.

AID has organized both studies and projects to deal directly with staple food crop production and marketing aspects. Since the difficulties of achieving short run increase in staple food crop yields or productivity were emphasized so forcefully, the evaluation team wishes to take note of the limitations that must be faced in the early exploitation of J.P.-26 research results in the countries cited. It should also be recognized that even where economic prospects are generally more promising e.g. Nigeria, markets, credit and related infrastructure must be further developed, if the project's research results in seed production and multiplication are to be usefully exploited.

In the context of this economic situation, the application of current policies on staple food crops in countries of the eastern Sahel leads to priority emphasis on the improvement by selection of local sorghum and millet varieties widely known and therefore acceptable to both consumers and cultivators. Even with limited cash expenditures for fertilizer, pesticides or insecticides, these local varieties still have the potential of acceptable yield increases over existing or traditional unimproved varieties. Government officials indicated that development, field trials and consumer testing of new varieties including dwarf and short season will continue. Cultivator and consumer acceptance of newer varieties will be encouraged by convincing demonstrations that new varieties together with the package of crop practices can yield results of 3,000 to 4,000 kg/ha, or perhaps 50 to 100% above current figures for the best improved local varieties available. When adequate quantities of fertilizer and other necessary inputs are available, a workable basis may be found for introducing newer varieties, particularly if the higher productivity on staple food crops could permit a diversion of acreage and resources to the additional production of commercial-type crops such as cotton, groundnuts, etc. Furthermore, government officials are studying possibilities of multiplication and production of new seed varieties for possible storage against future crop shortages arising from drought, floods, or other adverse circumstances similar to the present emergency.

APPENDIX A

CRITERIA FOR EVALUATION TEAM

MAJOR CEREALS PROJECT (J.P.26)

The evaluation team is to address two phases of the project:
Phase One (FY 1963 - 1970) dealing with staple food crop research and stimulation of regional and national agricultural research in West Africa;
Phase Two (FY 1971 - 1975) dealing with efforts to train indigenous agricultural research scientists and insuring project continuity after planned American and foreign technical assistance phase out in FY 75.

1. Identification of project research contribution to IRAT, IAR, IITA and local research organizations in parental germplasm and technical information, as well as the following:

   a. New varieties developed and released by project.

   b. Development of scientific information relevant to soil science, entomology and plant pathology in relation to staple food crops.

   c. Regional conferences, visits and meetings of scientists sponsored by project and research impetus created therein.

2. What use has been made by local governments, research organizations and institutions of project research outputs?

3. What is the role of STRC/OAU as sponsoring agency for the exploitation of project research results by the cooperating ministries of agriculture, and what is the relationship between STRC/OAU and these ministries?

   a. To what extent has the project contributed to the staple food crop research needs of cooperating governments, and what constraints, if any, have impeded that process?

   b. What impediments, if any, have confronted project contribution to the research needs of cooperating governments?

4. What technical training level is required for the implementation of an effective individual and regional cereals research program? Most PASA technicians provided by USDA hold Ph. D degrees. Is that same level of training required by Africans before Africanizing the project? What additional individual training is required to make effective Africanization of the project at the national and regional levels by the phaseout date in FY 75? Is training clearly related to project objectives?

5. Have the PASA team project staff been sufficiently oriented toward meeting future needs of extension and production programs of cooperating countries?

6. Have the PASA staff (Washington and field) kept up-to-date with AID project policy concepts in the implementation of project objectives?

7. Should PASA team contacts and communications be with cooperating ministries of agriculture, their departments of research, or be confined to regional research organizations in West Africa?

8. Are project objectives clearly defined and understood by STRC, USDA/ARS and ministries of agriculture of cooperating governments?

9. What measures have been taken by AID and STRC to institutionalize cereal research in West Africa, on a regional basis, and what financial support has been made towards that? Give proposals and guidelines for future program action.

10. Did the research performed by the PASA team make a substantial contribution to meeting project objectives?

a. Did team performance suffer due to personnel turnover?

b. Are research disciplines undertaken by the PASA team too extended for the objectives of the project? Should some specialties be eliminated and concentration be limited to priority research requirements?

c. Is there need for an American administrative assistant for the PASA team in view of small number of group?

d. Are commodities purchased or acquired by this project for PASA team utilized properly?

11. To what extent is the field trial officer arrangement operational? Is there need for more field trial officers? Are they acceptable to STRC and cooperating governments? How many countries are cooperating on seed trials and how many are planned by the FTOs before project phaseout?

a. Who performs the evaluation and supervision of the FTOs?

b. Is working arrangement between FTOs and PASA team members as well as cooperating governments conducive to achievement of project objectives?

c. Is there need for instituting modifications in FTO work arrangements? Or in changing their assignment stations?

12. Are AID mission personnel in cooperating countries informed of project project progress ? Is mutual cooperation evident among AID regional and bilateral missions in the support of the project? Are there any proposals to improve communications and coordination of project with these missions and regional research organizations such as IITA?

13. Are trainees fully utilized under project objectives? What incentives do they require to be retained with the project after their training? What follow-up evaluations are carried out and how much on-job-training do they receive?

14. Is PASA team using coordinated and integrated approach of all team elements toward satisfying project objectives? Has there been an adequate volume of scientific reports produced by the team for publication? And what suggestions are there to improve team output and reduce its cost of operation?

IV. APPENDIX B

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

| NARRATIVE SUMMARY | OBJECTIVELY VERIFIABLE INDICATORS |
|---|---|
| Program or Sector Goal: The broader objective to which this project contributes. | Measures of Goal Achievement: |
| To increase the quantity and quality of staple food crops available to the rapidly increasing populations of West Africa having only limited natural resources | Increasing supplies of food grains.<br><br>Reduced cereals deficit.<br><br>Decline in average annual cereals imports.<br><br>Achieve self-sufficiency in cereals production |
| Project Purpose: | Conditions that will indicate purpose has been achieved: End of project status |
| 1. To develop, disseminate and multiply high yielding, disease resistant, protein-rich staple cereal varieties for corn, sorghum and millet. | 1. Improved seed varieties developed, multiplied, disseminated and in use for corn, sorghum and millet. |
| 2. To strengthen the applied agricultural research capability of 16 West African countries within a regional framework and the systems established by STRC of OAU. | 2. Effective sustained regional research management on part of STRC.<br><br>3 An indigenous cadre of (U.S) trained researchers functioning by each of 16 countries, placing recent upon application and extension.<br><br>4. Identification and control of insects and pathogens attacking staple food crops.<br><br>5. Dissemination of vital scientific information on crops and soils resulting from sustained and systematic testing. |

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

| MEANS OF VERIFICATION | IMPORTANT ASSUMPTIONS |
|---|---|
| | Assumptions for achieving goal targets: |
| Official statistics and reports of participating countries and regional organizations.<br><br>Special sector studies or analyses and other related surveys. | 1. Workable country liaison established between research and extension.<br><br>2. Farmers receptive to taste and textures of new varieties and use of improved practices essential for success of new varieties.<br><br>3. Socio-economic conditions and good price and other policies are conducive to increased yields and production based upon use of improved, more costly techniques.<br><br>4. Various constraints on credit, storage marketing and transport can be removed or minimized.<br><br>5. Charges in rainfall patterns do not disrupt production systems. |
| | Assumptions for achieving purpose: |
| Project Progress Reports<br><br>Newsletters and Research Publications<br><br>Annual USAID PAR Reviews<br><br>Special Sector Studies and Analyses or other participating country or regional surveys. | 1. Technical problems solved and new varieties developed for sorghum and millet as well as corn by FY'75.<br><br>2. Basic research results will be effectively tested, evaluated, and communicated to regional research organizations and country extension services.<br><br>3. Seed Trials and seed multiplication can be organized in all or most participating country by FY'75.<br><br>4. Country extension services sufficiently organized and mobilized to bring research techniques to actual farm level. |

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

| NARRATIVE SUMMARY | OBJECTIVELY VERIFIABLE INDICATORS |
|---|---|
| Outputs: | Magnitude of Outputs: |
| Quantitative | |
| Basic Research | |
| 1. Development of protein-rich, high yielding and disease resistant varieties from indigenous foreign exatic germplasm for (a) corn (b) sorghum (c) millet. | No. of lines and strains tested: (a) corn 10,000 (b) sorghum 5,000 (c) millet 1,000<br>No. of varieties developed: (a) corn_____ b) sorghum_____ c) millet____ |
| 2. Conduct field trials in various ecological zones. | No. of sites for field trials_____ |
| 3. Start seed multiplication program | Four project-assisted sites in full operations FY'75 and able continue thereafter. Other countries encouraged to initiate and/or expand seed multiplication activities. |
| 4. Ascertain crop culture techniques | |
| 5. Appraisal of principal pests and pathogens attacking food crops with recommendations for control both chemically and through breeding resistant plants. | |
| 6. Tests and analysis of principal West African soil types and crop cultivation practices. | |
| Staff Development | |
| 7. Full counterpart management and research staff in regional STRC Coordination Unit supported by the facilities of IAR and ABU. | |
| 8. Staffing of 16 national applied research units with U.S. trained plant breeders, entomologists, pathologists, and soil scientists about 5 per cty. | Three returning FY'73 increasing thru FY'75 for total 87 at project end 20 already processed and 30 expected FY'73 from total of 53 applicants. |
| 9. Quantitative<br>Stimulation of interest in improved food crop research among cooperating countries. | |
| 10. Increased emphasis given by coop. governments at national level to staple food crop production. | |
| 11. Active cooperation and feedback between 16 project countries and STRC Coordinating Unit | |

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

| MEANS OF VERIFICATION | IMPORTANT ASSUMPTIONS |
|---|---|
| Project Progress Reports, Research Papers | Technical problems can be solved. |
| PASA, USAID and STRC Reports | Participating countries chosen will be capable of organizing, funding and implementing seed program. |
| Project Progress Reports, Research Papers | Extensive pest threat to short season varieties during rains can be controlled. |
| Project Progress Reports, Research Papers | |
| PASA, USAID and STRC Reports | Sufficient incentives for researchers to continue and resist administrative posts or other attractions.<br>STRC funding and staffing arrangements workable. |
| PASA, USAID and STRC Reports | Qualified trainees nominated by governments with sufficient incentives provided upon return.<br>Regional contacts can be maintained or even strengthened upon termination of J.P.-26. |
| PASA, USAID and STRC Reports | |

# AIRGRAM

# DEPARTMENT OF STATE

UNCLASSIFIED
CLASSIFICATION

For each address check one ACTION | INFO

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DATE SENT
2-3-79

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AIDTO CIRCULAR A- 40

LIST A.

FROM: AID/W

SUBJECT: Contractor Performance Evaluation Reports (CPERs)

REFERENCE:

The Africa Bureau feels that timely and thoughtful completion of the subject reports is vital if the quality of its design/implementation efforts is to be maintained and/or increased. This airgram sets forth procedures for evaluating the performance of Contractors doing business with the Africa Bureau, irrespective of whether the Contractor provided one or a number of individuals under the contractual arrangement. The evaluation must be of the Contractor, must not be of individuals who are either employees of or consultants to the Contractor, but may and should include in Part B.3. of the Contractor Performance Evaluation Report, copy attached, the names of individuals whose performance was considered unsatisfactory.

The procedures to be employed are as follows:

Carson

A. For Work Orders under IQCs:

1. All PIO/T requests for Work Orders are to be accompanied by Attachment A, the Work Order Request Memorandum, wherein the PIO/T originator, inter alia, is to list the name and position of all employees or consultants proposed by the IQC Contractor.

2. Upon receipt of an approved copy of the PIO/T from AFR/DR/PSS, the PIO/T originator is to forward immediately a copy of said PIO/T and a blank copy of the Contractor Performance Evaluation Report, AID Form 1420-43, Attachment B, to the field post most directly involved in the project.

Attachments:
A. Memo - Request for Issuance of Work Order
B. Contractor Performance Evaluation Report

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PAGE 1 OF PAGES 2

| DRAFTED BY | OFFICE | PHONE NO. | DATE | APPROVED BY: |
|---|---|---|---|---|
| N.A.Caticchio :bjs | AFR/DR/PSS | 28176 | 2/1/79 | AFR/DR, J.W. Koehring |

AID AND OTHER CLEARANCES
GC/C&P,RMeighan(draft)
SER/CM/SD,JWatkins(draft)
AFR/DR,LDurso(draft)
AFR/DR,LHeilman(draft)
AFR/DR,NCohen(draft)

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3. Immediately upon completion of all field work, the field post shall complete a CPER in accordance with the opening paragraph hereof and shall forward all copies of said CPER to the AID/W Project Officer.

4. The Project Officer, upon receipt of the CPER, is to add any comments he/she feels are appropriate, retain Copy No. 4, and forward copies 1 through 3 to AFR/DR/PSS.

5. AFR/DR/PSS will retain copy number 3, and forward the remaining copies to the appropriate Contracting Officer via CM/SD/SUP. It is understood, in accordance with AIDPR, Appendix C, Paragraph 5(b), that the Contracting Officer, in the case of an unsatisfactory report, shall furnish a copy thereof to the Contractor and shall request his comments prior to reviewing and approving the report.

6. AFR/DR/PSS will maintain an unofficial file of Contractor PERs. Upon receipt of any PIO/T request for a contractual arrangement with a firm whose performance has been unsatisfactory in a preceding two year period, it will so advise the PIO/T originator and recommend confirmation of same with the official file holder, SER/CM/SB.

B. For short-term contractual arrangements (six months or less):

1. Immediately upon completion of all work under a short-term arrangement, the officer most familiar with performance thereunder shall complete a CPER in accordance with the opening paragraph hereof and shall forward all copies to AFR/DR/PSS.

2. AFR/DR/PSS will follow the procedures set forth above in A.~~XX~~5. and A.~~XX~~6.

C. For long-term contractual arrangements (over six months):

1. At the end of the first six months, annually thereafter, and at the conclusion of said arrangement, the officer most familiar with performance thereunder shall immediately complete a CPER in accordance with the opening paragraph hereof and shall forward all copies to AFR/DR/PSS.

2. AFR/DR/PSS will follow the procedures set forth above in A.5. and A.6.

A separate letter to all addressees from AFR/DR, on this subject, will follow shortly.

VANCE

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Date _____

**MEMORANDUM**

ATTACHMENT A

TO : SER/CM/SOD/PDC, Mr. M. Snyder
or SER/CM/COD/OTR, Mr. L. Stanfield (line out one)

FROM : _____, _____ (Please sign)
(Office Symbol) (Name)

SUBJECT: Request for Issuance of Work Order

Please negotiate a Work Order under Indefinite Quantity Contract No. _____ with _____ for the services in the attached PIO/T No. _____.

I certify that to the best of my knowledge:

(1) The required services are not a fragmentation of known long term requirements;

(2) No AID direct hire employee or other individual resources such as experts and consultants or personal services contractors are available which can properly be used to perform the required services; and

(3) No AID employee has suggested to the recommended IQC Contractor that the placement of an order is conditional upon the Contractor's utilization of an individual or individuals not presently on the Contractor's staff or with whom the Contractor does not already have a consulting agreement.

Individuals proposed by the IQC are (please list name and position):

_____, _____ _____, _____

_____, _____ _____, _____

_____, _____ _____, _____

The person to be contacted with regard to this request is:

_____ Telephone _____ Room _____

The alternate is:

_____ Telephone _____ Room _____

The services required should start _____ days from the date of this memorandum.

Attachment: PIO/T

cc: Technical Manager,* _____, _____
(Office Symbol) (Name)

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ATTACHMENT B

Report Control Symbol U-1423 1

# CONTRACTOR PERFORMANCE EVALUATION REPORT

PERIOD COVERED

FROM: TO:

TYPE OF REPORT

☐ INITIAL ☐ ANNUAL ☐ FINAL

INSTRUCTIONS:

A. PROJECT MANAGER: Complete in accordance with M.O. 1423.9, detach copies 3 and 4 and make appropriate distribution, forward copies 1 and 2 to Contracting Officer.

B. CONTRACTING OFFICER: Review and sign form; retain copy 2 for Contract File; forward copy 1 to CM/SB, A.I.D./W.

## A. GENERAL INFORMATION

| 1. NAME OF CONTRACTOR | 2. CONTRACT NO/TASK ORDER NO. | 3. CONTRACT DURATION | 4. CONTRACT AMT. (CUMU |
|---|---|---|---|
| | | | |

| 5. PROJECT TITLE | 6. PROJECT NO. | 7. COUNTRY |
|---|---|---|
| | | |

## B. CONTRACTOR PERFORMANCE RATING

| 1. EVALUATION FACTORS | CHECK, IF SIGNIFICANT | PERFORMANCE AGAINST PLAN (•) | | | |
|---|---|---|---|---|---|
| | | NA | NEG. | AS PLANNED | SUPERIOR |
| a. Understanding project purpose | | | | | |
| b. Planning to achieve purpose | | | | | |
| c. Staff of proper size | | | | | |
| d. Timely arrival of personnel | | | | | |
| e. Technical qualifications of personnel | | | | | |
| f. Responsiveness to A.I.D. Directions | | | | | |
| g. Adherence to scope of work | | | | | |
| h. Adherence to work schedule | | | | | |
| i. Contractor's home office support | | | | | |
| j. Relations with cooperating country nationals | | | | | |
| k. Local staff training and utilization | | | | | |
| l. Effective administration of participants | | | | | |
| m. Management of commodities | | | | | |
| n. Timely submission of required reports | | | | | |
| o. Candor and usefulness of required reports | | | | | |
| p. Other (specify) _____ | | | | | |

| 2. OVERALL EVALUATION | UNSATISFACTORY | | SATISFACTORY | | | OUTSTANDING | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (•) Check one → | | | | | | | |

3. If any factor is rated "negative" or if overall rating is unsatisfactory, describe underlying circumstances. Use additional sheets, if necessary.

## C. SIGNATURES

| 1. PROJECT MANAGER | | 2. CONTRACTING OFFICER | |
|---|---|---|---|
| TYPED NAME | | TYPED NAME | |
| SIGNATURE | | SIGNATURE | |
| MISSION/OFFICE SYMBOL | DATE | MISSION/OFFICE SYMBOL | DATE REVIEWED |

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AID 1420-43 (8-72)

COPY 1 — CM/SB, A.I.D/W

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LIST A FOR AID AIRGRAMS AND TELEGRAMS SEND TO:

LIST A

| | |
|---|---|
| 3 | ABIDJAN |
| 4 | ACCRA |
| 5 | ADDIS ABABA |
| 2 | BAMAKO |
| 2 | BANJUL |
| 2 | BISSAU |
| 2 | BUJUMBURA |
| 1 | CONAKRY |
| 1 | COTONOU |
| 4 | DAKAR |
| 6 | DAR ES SALAAM |
| 2 | DJIBOUTI |
| 1 | FREETOWN |
| 2 | GABORONE |
| 3 | KHARTOUM |
| 2 | KIGALI |
| 5 | KINSHASA |
| 2 | LAGOS |
| 2 | LILONGWE |
| 2 | LUSAKA |
| 2 | MASERU |
| 2 | MBABANE |
| 3 | MOGADISCIO |
| 5 | MONROVIA |
| 12 | NAIROBI |
| 3 | NDJAMENA |
| 5 | NIAMEY |
| 2 | NOUAKCHOTT |
| 2 | OUAGADOUGOU |
| 4 | YAOUNDE |
| 1 | LOME |

CAPTIONS

@ NAIROBI FOR USAID AND REDSO/EA

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CLASSIFICATION

11/7/78

32 POSTS 32 @92 CYS W/CAPTIONS)

225

| | TEAM LEADER | MANAGEMENT SPECIALIST | FARMING SYSTEMS RESEARCH Sub-Team Leader | FSR - II* | RESEARCH SPECIALIST |
|---|---|---|---|---|---|
| MA. 8 W | | | | | |
| 14 T | | | | | |
| 15 F | | AID/W BRIEFING | | | |
| 16 S | | | | | |
| 17 S | | TRAVEL TO UPPER VOLTA | | | |
| 18 M | | | | | |
| 19 T | | | | | |
| 20 W | | UPPER VOLTA BRIEFINGS - PRELIMINARY REVIEW | | | |
| 21 T | REGIONAL RESEARCH | | | OVERVIEW FSU - UPPER VOLTA | UPPER VOLTA |
| 22 F | | | | | |
| 23 S | OVERVIEW | UPPER VOLTA | UPPER VOLTA - FARMING SYSTEMS UNIT | TRAVEL TO MALI | TRAVEL TO MALI |
| 24 S | TRAVEL TO NIGERIA | | | | |
| 25 M | | | | | |
| 26 T | LAGOS - OAU/STRC | | | ACPO WORK - MALI | COOPERATIVE NATIONAL RESEARCH PROGRAM - MALI |
| 27 W | | | | | |
| 28 T | SAMARU/KANO | | | | |
| 29 F | | | | | |
| 30 S | TRAVEL - UPPER VOLTA | TRAVEL TO SENEGAL | | TRAVEL TO CAMEROON | TRAVEL TO CAMEROON |
| 31 S | | | | | |
| JUNE 1 M | | | | | |
| 2 T | REGIONAL RESEARCH SYSTEM | ICRISAT ACPO - SENEGAL | ACPO WORK - UPPER VOLTA | ACPO WORK - CAMEROON | COOPERATIVE NATIONAL RESEARCH PROGRAM - CAMEROON |
| 3 W | | | | | |
| 4 T | | | | | |
| 5 F | | | | | |
| 6 S | | TRAVEL TO UPPER VOLTA | | TRAVEL TO UPPER VOLTA | TRAVEL TO UPPER VOLTA |
| 7 S | | | | | |
| 8 M | CONSULT TEAM MEMBERS | CONSULT TEAM LEADER | | | |
| 9 T | | | | | |
| 10 W | | | | | |
| 11 T | | | | | |
| 12 F | | | | | |
| 13 S | | TRAVEL TO U.S. | | | TRAVEL HOME |
| 14 S | | | | | |
| 15 M | REPORT DRAFTING, BRIEFING UPPER VOLTA | AID DEBRIEFING | | | |
| 16 T | | | | | |
| 17 W | | | NOT ON PROJECT | | |
| 18 T | | | | | |
| 19 F | TRAVEL TO US ~~RETURN~~ | | | | |
| 20 S | | | | | |
| 21 S | | | | | |
| 22 M | AID/W DEBRIEFING - COMPLETION OF REPORT | | AID DEBRIEFING | | |
| 23 T | | | | | |
| 24 W | | | | | |
| 25 T | | | | | |
| 26 F | | | | | |

* TRAVEL ITINERARY IN AFRICA FOR ILLUSTRATIVE PURPOSES ONLY. MAY BE SUBSTANTIALLY ALTERED (SEE TEXT)

SEMI-ARID FOOD GRAINS RESEARCH AND DEVELOPMENT (SAFGRAD)

(MAIZE, COWPEAS, SORGHUM, MILLET, PEANUTS)

A F R I C A

~~Attachment I~~

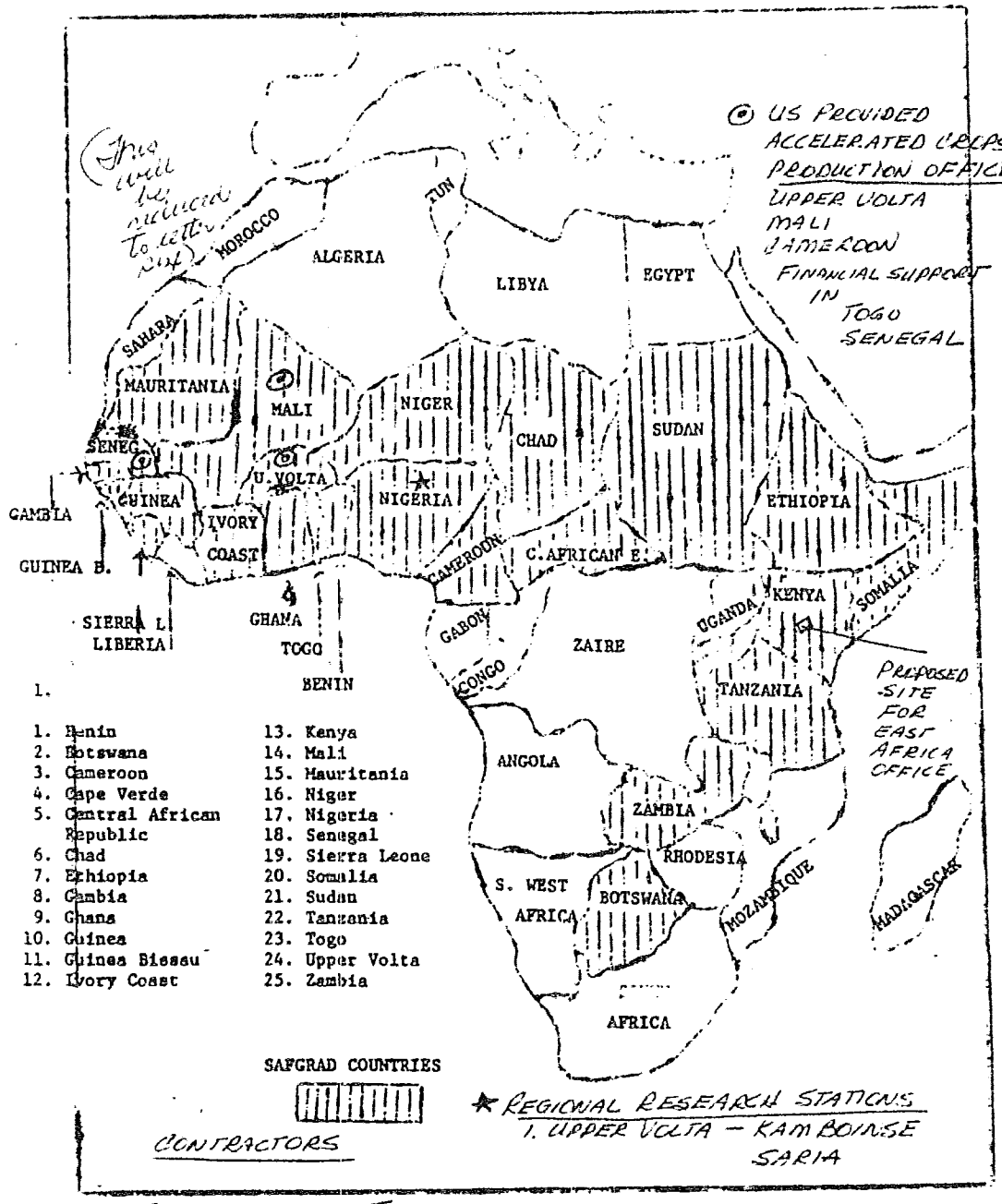
~~Attachment II~~

~~Appendix A~~

WORKSHOPS TO BE HELD IN 1981

1. FARMING SYSTEMS - DAKAR - JAN.
2. MAIZE/COWPEAS - NIGERIA - FEBRUARY
3. SORGHUM/MILLET - BOTSWANA - MARCH

PARTICIPATING AND COOPERATING COUNTRIES IN SAFGRAD PROJECT




1.

1. Benin
2. Botswana
3. Cameroon
4. Cape Verde
5. Central African Republic
6. Chad
7. Ethiopia
8. Gambia
9. Ghana
10. Guinea
11. Guinea Bissau
12. Ivory Coast
13. Kenya
14. Mali
15. Mauritania
16. Niger
17. Nigeria
18. Senegal
19. Sierra Leone
20. Somalia
21. Sudan
22. Tanzania
23. Togo
24. Upper Volta
25. Zambia

CONTRACTORS

1. INTERNATIONAL INSTITUTE OF TROPICAL AGRICULTURE - (IITA) - MAIZE, COWPEAS
2. INTERNATIONAL CENTER FOR RESEARCH FOR THE SEMI-ARID TROPICS (ICRISAT) - SORGHUM AND MILLET
3. PURDUE UNIVERSITY - FARMING SYSTEMS RESEARCH
2. NIGERIA - ZARIA, AMADU BELLO UNIVERSITY
3. SENEGAL - BAMBEY

AIRGRAM

# DEPARTMENT OF STATE

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For each address check one ACTION | INFO

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DATE SENT 12/2/78

TO - ~~XXXXXXXXXXXXXXXX~~ AIDTO CIRCULAR A- 486

FROM - AID/W

SUBJECT - Submission and Distribution of Project Evaluation Summary (PES)

REFERENCE - A. AIDTO CIRC A-188
B. AID Form 1330-15, 15A, 15B, Project Evaluation Summary (PES)

DISTRIBUTION
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8ASIA 4
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AGRIC

Based on the latest ABS, AID/W estimates that 1,300 field evaluations are currently scheduled. Only a small fraction of reports submitted to date have reached AID's Office of Development Information, and improvements in the submission and distribution procedures are clearly called for. Each geographic bureau evaluation office has the responsibility to oversee the scheduling, receipt and distribution of field evaluations. Beyond assuring that projects are evaluated at appropriate times, we all have a stake in assuring that the results of AID's evaluative work are available for use by all.

In order to facilitate distribution of evaluation reports, AID is handling them through the regular airgram communications system. However, evaluation reports are at times still being handcarried or pouched without adequate identification, or otherwise submitted in such a manner that they are not properly picked up by the communications system. Missions can assist in the timely and accurate distribution of their reports by following these guidelines:

A. Subject Labeling of Airgrams

All evaluation reports will be submitted on or under cover of an airgram. (Specific guidance on formats for submissions is contained in sections B and C below.)

PAGE 1 OF 3

| DRAFTED BY | OFFICE | PHONE NO. | DATE | APPROVED BY |
|---|---|---|---|---|
| FDimond:rac<br>JSilver | PPC/E/PDES<br>NENA/DP | X29104<br>X29136 | 11/30/78 | AAA/<br>PPC/E:Robert Berg |

CLEARANCES
PPC/E/PDES:HTurner (in draft)
NENA/DP:JSilver
LAC/DP:BGoldstein
SER/~~MO/CRM~~:RAGardner (in draft)
AFR/DP:PSaenz
ASIA/DP:VElliott
SER/MP:WFradenburg (in draft)
DS/DIU/DI:LAllen (in draft)
Info: DSB/PO:CMolfetto
PDC:EBetzig

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CAUTION-Remove protector sheet before typing--replace when typed

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Regardless of what form the submission takes, AID/W will rely on the airgram facesheet to trigger the standard distribution for all evaluations. Subject heading for such airgrams should be labeled, "Project Evaluation Summary". (Missions may substitute the term, "Program Evaluation Summary" where the evaluation does not cover a project per se.) A typical airgram subject would be: Project Evaluation Summary-Higher Agriculture Education Project (0143) PES No. 79-1.

B. Formats for Submission of Evaluation Reports

The Mission should prepare a PES facesheet to accompany all submissions, except as noted in item B.7, below.

1. A project evaluation narrative may be fully typed on airgram forms and the PES facesheet attached.

2. The evaluation narrative may be typed on bond paper and submitted together with the PES facesheet as an attachment to an airgram. This format may serve for most regular and some special evaluations.

3. A bound or stapled report(s) may be submitted with the PES facesheet, as an attachment to an airgram cover.

4. If the report submitted is considered to be a special evaluation, Missions are requested to identify it as such in the cover airgram.

5. Wherever an evaluation prepared by non-AID personnel is being submitted, Missions are requested to include, in addition to the information on the accompanying PES facesheet, their own assessment of the report in the cover airgram.

6. If it is more convenient for reasons of space or organization to describe action decisions as part of the narrative rather than on the PES facesheet itself (item 8), simply reference the narrative section on the PES facesheet.

7. An evaluation report dealing with a whole sector or a number of separate projects may be difficult to document on the PES facesheet which was established for a single project. In such cases, Missions may use the airgram cover to provide the information that would normally be reported on the PES facesheet.

C. Reproduction of Attachments

AID/W distribution will include complete sets of all attachments as standard procedure based on AID/W reproduction of the sets of documents received.

Missions should thus include one copy of every attachment including bound reports as relevant, but no more than one copy (See Item B3 above.)

As we assess the results of the distribution arrangements and of these guidelines for submitting evaluation reports, it may be necessary to make some revisions. Missions are urged to let bureau evaluation offices know whether or not these guidelines are functional, and to suggest ways in which they might be changed/improved, as the basis for eventually incorporating them in the A.I.D. Handbook System.

A copy of REF B is attached FYI. Additional copies of this form may be obtained from AID/W Distribution Services, Room B-656, by requisition.

VANCE

Cable room send to List G.

370

CLASSIFICATION

# PROJECT EVALUATION SUMMARY (PES) – PART I

Report Symbol [illegible]

| 1. PROJECT TITLE | 2. PROJECT NUMBER | 3. MISSION/AID/W OFFICE |
|---|---|---|
| | 4. EVALUATION NUMBER (Enter the number assigned by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) | |
| | ☐ REGULAR EVALUATION ☐ SPECIAL EVALUATION | |

| 5. KEY PROJECT IMPLEMENTATION DATES | 6. ESTIMATED PROJECT FUNDING | 7. PERIOD COVERED BY EVALUATION |
|---|---|---|
| A. First PRO-AG or Equivalent FY____ B. Final Obligation Expected FY____ C. Final Input Delivery FY____ | A. Total $ _____ B. U.S. $ _____ | From (month/yr.) _____ To (month/yr.) _____ Date of Evaluation Review |

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

| A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.) | B. NAME OF OFFICER RESPONSIBLE FOR ACTION | C. DATE ACTION TO BE COMPLETED |
|---|---|---|
| | | |

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- ☐ Project Paper
- ☐ Financial Plan
- ☐ Logical Framework
- ☐ Project Agreement
- ☐ Implementation Plan e.g., CPI Network
- ☐ PIO/T
- ☐ PIO/C
- ☐ PIO/P
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

- A. ☐ Continue Project Without Change
- B. ☐ Change Project Design and/or ☐ Change Implementation Plan
- C. ☐ Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

12. Mission/AID/W Office Director Approval

Signature

Typed Name

Date

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LIST G AID AIRGRAMS AND TELEGRAMS SEND TO:

LIST G

| | | | | | |
|---|---|---|---|---|---|
| 5 | ABIDJAN | 1 | GENEVA + | 2 | MEXICO |
| 4 | ACCRA | 3 | GEORGETOWN | 3 | MOGADISCIO |
| 5 | ADDIS ABABA | 5 | GUATEMALA | 5 | MONROVIA |
| 6 | AMMAN | 9 | ISLAMABAD | | |
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| 3 | ASUNCION | 5 | KABUL | 12 | NAIROBI |
| 2 | BAMAKO | 3 | KARACHI | 5 | NEW DELHI |
| 5 | BANGKOK | | | 5 | NIAMEY |
| 2 | BANJUL | 4 | KATHMANDU | 1 | NICOSIA |
| 2 | BEIRUT VIA POUCH | 3 | KHARTOUM | 2 | NOUAKCHOTT |
| 2 | BISSAU | 2 | KIGALI | 3 | NDJAMENA |
| 5 | BOGOTA | 3 | KINGSTON | 3 | OUAGADOUGOU |
| 2 | BRASILIA | 5 | KINSHASA | 5 | PANAMA |
| 1 | BRIDGETOWN | 2 | LAGOS + | 5 | PARIS + |
| 2 | BUJUMBURA | 5 | LA PAZ | 6 | PORT AU PRINCE |
| 4 | CAIRO | | | | |
| 5 | COLOMBO | 2 | LILONGWE | 2 | QUITO |
| 1 | CONAKRY | 5 | LIMA | 5 | RABAT |
| 1 | COTONOU | 1 | LISBON | 3 | ROME + |
| 5 | DACCA | 1 | LOME | 4 | SANA |
| 4 | DAKAR | 2 | LUSAKA | 5 | SAN JOSE |
| 9 | DAMASCUS | 5 | MANAGUA | 5 | SAN SALVADOR |
| 6 | DAR ES SALAAM | 5 | MANILA | 4 | SANTIAGO |
| 2 | DJIBOUTI | 2 | MASERU | 5 | SANTO DOMINGO |
| 1 | FREETOWN | | | 4 | SEOUL |
| 2 | GABORONE | 2 | MBABANE | 6 | TEGUCIAGALPA |
| | | | | 4 | TUNIS |
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CAPTIONS

5 GUATEMALA FOR USAID AND ROCAP

3 KARACHI FOR AAG AND IIS

2 NAIROBI FOR USAID AND REDSO/EA

5 PARIS FOR UNESCO AND USOECD

3 ROME ALSO FOR AID OFFICE FRIULI

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CLASSIFICATION

11/7/78

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WARDA

[illegible]

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ACTION MEMORANDUM DECISION

1. Mission
MARD/Liberia

2. Project Number
669-0212

3. Project Title
Rural Access Plan Development Implementation (RAPID)

4. Key project dates (fiscal years)
a. Project Approved: Mode Signed: FY
b. Final Obligation: FY
c. Final Input: FY
d. Project Completed:

5. Total U.S. Country-PVO of projects

6. Evaluation number (as listed in eval. schedule)
No. 78-3

7. Number of hours evaluation took: 10-11 on: 3/26
Month/Year Month/Year

8. Date of this Evaluation Review
3/29/78
Month/Day/Year

9. Action Decisions Reached at Evaluation Review.
(NOTE: All specific action recommendations were made by the evaluation team in the executive report. Only the major ones are listed here.)

| | 10. Action to be taken responsible for follow-up | 11. Date action to be completed |
|---|---|---|
| **NOTE:** | | |
| A. If intensified efforts to insure a successful Rice for the Rapid Station fail, AID/A should retain the option of the Station for Rice or other farming activity. | USAID & AID/W | July, 1978 |
| B. Authority for Rapid Station should be delegated to GOL/Lofa. | AID/W | July, 1978 |
| C. The research efforts and facilities at Rapid should be directed to area adaptive, farmer research. | USAID | July, 1979 |
| D. Rapid's extension research directive should be revised from a MARD review study. | USAID | Dec., 1978 |
| **NOTE:** | | |
| E. Training curriculum should be more practical. | USAID, GOL | Aug., 1978 |
| F. Outreach of staff and resources between Lofa and the Training Center should be increased. | USAID | July, 1979 |
| G. A male-oriented/female variety of vegetable seed also Cowpea should be initiated. | USAID | Dec., 1979 |
| **NOTE:** | | |
| H. USAID should consider participation in male-oriented studies in several areas. | USAID | July, 1979 |
| I. Consideration should be given to costs and benefits of a study of MARD's program based on regional also pre-feasible. | USAID & MARD | July, 1979 |

**NOTE:** Acting Auditor General, Federal Government & Financial audit of USAID in January 1978. Its audit recommendations were contained in the draft report dated April 10, 1978.

12. Signatures:

Project Officer

Signature
Name

Typed
Name Title & Organization

Mission Director

Signature
Name Edward [illegible]
Date
Typed
Name & Title Stanley E. Gershon

13. SUMMARY

The evaluation team reviewed WARDA progress and accomplishments from the perspective of the four major operating entities: Secretariat, Training Center, Mopti Research Station, and Rokupr Research Station. Each of these entities contributes to the success of the project at the output and project purpose levels, which were the main focus for this interim evaluation.

a) Secretariat. The WARDA Secretariat operates on an annual budget of $844,000 (1978) to be contributed by the 14 member countries. As an indicator of regional support and interest in WARDA, annual member country payments show mixed results with 85% of 1976 payments and 35% of 1977 payments received as of January 1978. Foreign donor support as a % of total WARDA budget has not decreased.

From the program perspective, the Secretariat has greatest potential for linking the research and training activities to the needs of the farmers within the region. For WARDA to evaluate any impact at the project goal level (increased and improved rice production) there will need to be concerted effort in the extension services, perhaps spearheaded by the Secretariat staff.

b) Training Center. During the first two years of operation, 1976 and 1977, the Training Center has graduated 159 trainees in a series of three courses: 6-week course for Field Assistants, 6-month course for Rice Specialists, and 3-week course for special topics i.e. post-harvest technology. While the scientific/research components of the courses appear adequate, more attention is required for extension techniques and for exposure to the two Research Stations' operations and research findings. A sample of the Training Center graduates from Liberia, the Gambia, and Nigeria indicates that most of the graduates have continued in some form of rice-related activity for their respective governments.

c) Mopti Research Station. The newest of the two WARDA research stations, Mopti has had personnel on site since late 1976. Its progress has been somewhat retarded by the lack of a director to give management and program direction. Problem areas and decisions are still process and input oriented i.e. facilities, equipment, paddy construction, etc. Positive indicators include Government of Mali contributions (est. $400,000 in land and infrastructure); basic working relationship with Operation Riz Mopti (GTZ project for marketing, milling and extension for rice farmers); a five-man staff of research assistants who are qualified but lacking field experience. No results of 1977 research efforts were yet available.

d) Rokupr Research Station. The Station's research program is firmly based on a philosophy of identifying practical solutions to problems of farmers, which is applied by continuous field trials and feedback with farmers locaten farmers in the area. Rokupr comes closest to meeting project purpose level operations: research to date has focused on varietal improvements in rice also by evaluating good points of traditional varieties and then testing of 350 imported varieties for adaptability. Research is now aimed at 2 primary types of high-yielding varieties: long-duration, disease-resistant variety for present cropping methods and short-duration, acid-tolerant variety for potential double cropping. The gap of socio-cultural information will be initially addressed in 1978 with a proposed study in the Rokupr area.

In a regional context, Rokupr administers coordinated trials in approximately 100 locations throughout the WARDA region. In addition, the Mali-Mopti dynamic varietal research trials continue for consumption by the region.

16. BACKGROUND METHODOLOGY.
Over a period of five and a half weeks from February 17 to March 29, 1976, a team of four individuals conducted an evaluation of USAID activities on the behalf of USAID. The evaluation team was composed of two Liberians under USAID from the U.S. Department of Agriculture, an agricultural economist recruited from USDA staff, and the USAID project officer. The composition of the team provided the overall perspectives of external experts, USAID and the Liberians, and enabled the studying and reassessment of both a material and practical nature.

It was originally anticipated that the evaluation could include an in-depth analysis of USAID's role in the region, this proved virtually impossible given the time and resources available. One of the circumstances of the evaluation was to the USAID and USAID to give overall consideration to a long-term impact analysis within the next ten to three years. The evaluators determined that USAID was major regional organization participating in agricultural activities and was well in the innovative program and research areas and there was considerable history to expect future accomplishments to exist.

17. Documents to be reviewed in future evaluations should place [illegible] [illegible] the accomplishments of USAID/Liberia in the region.

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DEPARTMENT OF STATE

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TO - AS/FR
ROOM B-930 NS
AID/WASHINGTON

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DATE SENT
3/30/78

FROM - AMEMBASSY RAB ES SALAAM

SUBJECT - PES Serial No. 78-2 for Agriculture Credit Project No. 621-0117

REFERENCE -

1. Submitted herewith are the original mats of subject PES.

2. In the future the Mission will submit the PES on Airgram forms.

SPAIN

Sanders

PAGE 1 OF PAGES 1

Attach. sent Mail Room - 4/30/78

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AID AND OTHER CLEARANCES
AGR:RCobb

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CLASSIFICATION

AID-5-39 (11-65) Copy sent to McFarlane & Mr. Henderson 4/25/78 (Do not type below this line)

PRINTED 387

# PROJECT EVALUATION SUMMARY
(Submit to PD/PAV after each Project Evaluation)

| | |
|---|---|
| 1. Mission or AID/W Office Name<br>USAID/Tanzania | 2. Project Number<br>621-0117 |
| 3. Project Title<br>Agricultural Credit Project | |
| 4. Key Project Dates (Fiscal Years)<br>a. Project Agreement Signed 1974 b. Final Obligation 1980 c. Final Input Delivered 1980 | 5. Total U.S. Funding - Life of Project<br>$ 4.0 Million |
| 6. Evaluation No. as listed in Eval Schedule<br>7. Period Covered by This Eval. From: June 1977 Month/Year To: Dec. 1977 Month/Year | 8. Date of This Evaluation Review<br>Month/Day/Year |

| 9. Action Decisions Reached at Evaluation Review, Including Items Needing Further Study: | 10. Officer or Unit Responsible For Follow-Up | 11. Date Action to be Completed |
|---|---|---|
| a. Monitor results of village credit impact study and determine type of follow-on evaluation needed in other areas. | Hill | 31 March 1978 |
| b. Given the results of the impact study and in light of the constraints mentioned in Sections 13.c. and 16, identify changes or expansion of project inputs required in FY 78, 79, and 80. | Cobb | 31 March 1978 |
| c. Congruent with No. b. above, closely monitor the take over of National Maize Project responsibilities by TFDB. | Hill | Continuing |
| d. Identify replacement for Mr. Hodges. | Cobb | August 1978 |

| 12. Signatures: Project Officer | Mission or AID/W Office Director |
|---|---|
| Signature | Signature |
| Typed Name Barry M. Hill, Asst Ag Dev Officer | Typed Name Richard L. Podol, A/DIR |
| Date 8 March 1978 | Date 8 March 1978 |

Serial No. 78-2

UNCLASSIFIED

# PROJECT EVALUATION SUMMARY

(Submit to MO/PAV after each Project Evaluation)

| | |
|---|---|
| 1. Mission or AID/W Office Name<br>USAID/Tanzania | 2. Project Number<br>621-0117 |
| 3. Project Title<br>Agricultural Credit Project | |
| 4. Key Project Dates (Fiscal Years)<br>a. Project Agreement Signed 1974<br>b. Final Obligation 1980<br>c. Final Input Delivered 1980 | 5. Total U.S. Funding - Life of Project<br>$ 4.0 Million |
| 6. Evaluation No. as listed in Eval Schedule<br>7. Period Covered by This Eval. From: June 1977 Month/Year To: Dec. 1977 Month/Year | 8. Date of This Evaluation Review<br>Month/Day/Year |

| 9. Action Decisions Reached at Evaluation Review, Including Items Needing Further Study: | 10. Officer or Unit Responsible For Follow-Up | 11. Date Action to be Completed |
|---|---|---|
| a. Monitor results of village credit impact study and determine type of follow-on evaluation needed in other areas. | Hill | 31 March 1978 |
| b. Given the results of the impact study and in light of the constraints mentioned in Sections 13.e. and 16, identify changes or expansion of project inputs required in FY 78, 79, and 80. | Cobb | 31 March 1978 |
| c. Congruent with No. b. above, closely monitor the take over of National Maize Project responsibilities by TRDB. | Hill | Continuing |
| d. Identify replacement for Mr. Hodges. | Cobb | August 1978 |

| 12. Signatures: Project Officer | Mission or AID/W Office Director |
|---|---|
| Signature | Signature |
| Typed Name Barry H. Hill, Asst Ag Dev Officer | Typed Name Richard L. Podol, A/DIR |
| Date 8 March 1978 | Date 8 March 1978 |

UNCLASSIFIED

13. SUMMARY - This Project Evaluation Summary is a brief supplement of progress made and problems uncovered since the in-depth evaluation of this project in June, 1977. Interested readers should refer to the June evaluation for a comprehensive analysis of the project. With the exceptions noted in Sections 13-e and -i below, the project is proceeding on track at the Purpose, Output and Input levels. It is difficult to assess the extent of progress toward the Project Goal at this time. Major recommendations from the June 1977 in-dept evaluation are being implemented. Specific achievements and problems noted are as follows:

a. As recommended in the 1977 in-depth evaluation, baseline data to allow assessment of the impact of credit on the small farmer will be forthcoming in April. A farmer questionnaire has been designed and field tested. Data will be obtained from 20+ farmers in each of 14 villages in the Arusha Region during March. The results of the study should enable TRDB management to more effectively design and implement credit plans, policy and loan documentation procedures to overcome significant difficulties in credit-worthiness assessment and loan recovery. Also, vital information about farmer perception of the meaning and purpose of credit should be obtained. During recent meetings of AID and contract staff, it has been proposed to repeat this study in other areas where the Bank now operates or intends to operate in the future.

b. TRDB management and ACDI consultants are well aware of significant deficiencies in trained manpower for the regions. Plans are underway to overcome these deficiencies immediately as well as continue to strengthen these critical areas through a second phase of the project. (See Section 19 for details.)

c. Professional relationships among ACDI consultants, Messrs. Gollehon and Hodges, and Bank staff are excellent and contribute to the overall development of the Bank in training; administration/management; Bank operational procedures, record keeping, employee supervision, development of job descriptions, employee professional development, etc. The preparation of the TRDB Operations Manual is on schedule; current work is being concentrated on the refinement of loan forms to be utilized by regional personnel to determine applicant credit-worthiness, ability to repay loans, and reasons for loans in arrears.

d. One long-term and seven short-term participants returned from training in 1977, and are involved in TRDB activities. TRDB General Manager Maginga's personal assessment of the quality of training for these and past returnees is very positive. He feels the training has been appropriate to the trainees' personal professional development plans as well as meeting the requirements of the Bank. (See Section 19)

e. The Small Farmer Loan Program has not been utilized to the extent projected because the National Maize Project (NMP) has extended heavily subsidized inputs to the farmers in the same areas as those getting credit from TRDB. The subsidy was so large that the production inputs were looked upon almost as "gifts" by the farmers. This practice has made it extremely difficult for Bank regional personnel to convince village farmers to accept loans, and where made, to repay them. Recently TRDB has been mandated by TanGov to assume most of the functions of the NMP, which will solve this problem. The new request, however, will create other problems for the Bank. These will be discussed in Section 16.

f. The inflow of project commodities has been satisfactory. Eight motorcycles, 82 carculators and small office accessories/equipment were ordered and received in 1977. Tape recorders, slide projectors and related accessories have been ordered for employee training and will arrive in March or April, 1978. An acute need is still outstanding for vehicles for use by TRDB regional staff. Transport problems seriously inhibit their effectiveness.

g. The enhancement of financial monitoring within the bank structure--loan accounting system, internal audit capability and financial reporting--are developing satisfactorily under the supervision of ACDI consultant, Mr. Hodges.

h. Farmer applications for loans increased during 1977. Currently over 200 loan applications are in process. The loan collection rate was hampered by non-settlement of cooperative union and cooperative society debts following their elimination by government decree. This has created major problems for the Bank. The situation now appears to be stabilized.

i. Employee retention in the Bank is not satisfactory. A combination of low salaries and frequent "raiding" from other firms and organizations--which can offer higher salaries/benefits--causes the recurrent loss of several outstanding staffers every year. There is little that can be done, as TanGov has full control over salary levels for all government organizations, including the Bank. No allowance for bonuses/incentives/increased benefits is incorporated into the pay and allowances system.

For example, an individual at the middle level--a credit supervisor--was lost to the Caterpillar Company in 1977. It is the loss of people such as this individual that most severely hampers Bank personnel development.

There is no indication of problems of personnel retention at high administrative levels.

No individual participant trained under USAID grant has been lost to other organizations to date.

j. There are factors external to the project which may hinder the attainment of project objectives. This will be discussed in Section 16.

k. The TRDB Governing Board, in its meeting in February 1978 will be considering the possibility of extension of this project during the period 1980-1985. TShould the Board decide to proceed with a request for continued USAID assistance, consulcant help may be required to aid in the design of the extended project.

14. EVALUATION METHODOLOGY - This report constitutes a supplement and up-date to the in-depth evaluation conducted in June 1977. Information and data for this report were derived from meetings with the ACDI project consultants and the TRDB General Manager and Operations Manager.

15. DOCUMENTS TO BE REVISED - Further documentation will be determined pending the outcome of discussions with TRDB regarding expanded assistance under the project.

16. EXTERNAL FACTORS - There are influences on project execution and objectives which are outside project control and/or overlap with other TanGov plans and policies. These include:

a. The lack of coordinated transportation/marketing/distribution systems to enable primary farm input (seed, fertilizer, chemicals) to reach the farmers. This presents serious challenges to the expansion of TRDB regional offices in remote, hard-to-reach areas due to the inherent relationship between input availability and the need and viability of credit.

b. Frequent TanGov policy changes. The dissolution of the cooperative unions and transfer of their responsibilities to TRDB resulted in an overload on Bank personnel. The transfer of the National Maize Project (being dissolved at present) responsibilities to TRDB will clear up problems of farmer perception and acceptance of credit; but, TRDB is presently not fully equipped to undertake NMP's former functions in delivery of seed, fertilizer and chemicals to the farmers. As yet, no clear mandate for this responsibility has been given to TRDB or any other government organization or parastatal involved in distributions of inputs. TRDB has for some time had the responsibility of administering the transport and storage components of the NMP program which are progressing at a slow but in a satisfactory manner.

17. FINDINGS ABOUT PROJECT GOAL/SUB-GOAL - The goal is "to assist the TanGov to achieve its objective of self-sufficiency in the food crops and livestock agricultural subsectors."

The sub-goal of this project is to "address a major constraint to this goal--development of an agricultural credit institution to finance production and marketing of agricultural products."

It is difficult to determine at this time the direct effect of rural credit on the goal of this project. The indicators of success in the project logical framework relate to food imports reduction, food production increases, and the increased availability of food supplies through enhanced marketing and distribution systems. However, to the extent that the project has improved the availability of credit to the Tanzanian farmer, it can then be concluded the project has directly affected progress in the attainment of this goal. However, achievement of the goal cannot be measured at this early date. The credit impact study mentioned in Section 13.a. is an effort to initiate measurement of goal achievement.

18. PROJECT PURPOSE - The purpose of the project is: "To assist the Tanzanian Government strengthen and improve the Tanzania Rural Development Bank (TRDB) as a rural credit institution."

An associated purpose is "the development of a TRDB food crop production loan program for small farmers."

PROGRESS TOWARD EOPS:

| INDICATORS (EOPS) | PROGRESS |
|---|---|
| a. Increase in professional and middle level staff | In FY 1977, total increase of 26 trained professionals for regional offices. |
| b. Improved qualifications of staff | Training is being provided as covered in other sections of this report. |
| c. Increased decentralization of operations | Proceeding as rapidly as trained staff and operational policies and procedures allow. |
| d. Improved development and analysis of projects. | As covered in this report. |
| e. Improved financial management | New accounting and records systems in process of development. |
| f. Reduced loan delinquency | Twenty-nine percent of all loan volume now in arrears. Compares favorably to 50+ percent in 1975/76. |
| g. Increase in loan volume | Amount of loans in TRDB portfolio disbursed in 1977 = $19 million; total portfolio = $53 million. Increase in disbursement of Small Farmer Food Crop Loans is deliberately small until problems with National Maize Project worked out. |

19. OUTPUTS/INPUTS

a. The training of personnel, both short and long term, is now being more closely geared toward strengthening a particular person to meet specific staffing problems/weaknesses of the Bank. U.S-based ACDI management has been very helpful in the implementation of short-term training in the U.S. geared to the needs of the Bank and the participant.

b. To achieve increased proficiency of all categories of regional personnel and to achieve greater decentralization of TRDB operations, additional expatriate assistance for the future is being discussed, tentatively:

(1) Area Training Specialist. This person would assist in the design and implementation of on-the-job training in the regions.

(2) Senior Area Supervisor. This person would assist in the development of regional operations of the Bank. He/she would also help in carrying out all systems of the Bank's operations. These systems are to be described in final form in the Bank Operations Manual, soon to be completed.

(3) Loan Classification and Evaluation Officer. This person would assist in handling and solving major problems of acceptance of credit and loan repayment, which now severely inhibit the ability to extend credit on a sound basis, properly supervise loans and obtain timely repayment.

c. Other Personnel Needs. ACDI consultant Hodges will be leaving Tanzania in October 1978. The ACDI home office should immediately begin identifying his replacement.

d. The TRDB Board meeting agenda for February 1978 includes formulation of a request to USAID for support of an expanded project in the period 1980-85. ACDI is a logical source of short-term consultant assistance to aid Bank management in the formulation of future plans. Chief of Party Gollehon will require--if USAID indicates interest--assistance in drafting the Bank proposal for project continuance. It is felt at this time that the expansion would concentrate on regional development of Bank operations in order to strengthen the weakest areas of the Bank's operations and assure success of the Small Farmer Food Crop Loan Program.

e. ACDI is providing a consultant for 2-1/2 months beginning Marcy 15, 1978 to implement improved filing/records retention systems. This will likely result in the need for follow-up, i.e., equipment/supplies to be ordered, further expert assistance. Such a system is considered essential for reaching project objectives.

20. UNPLANNED EFFECTS - No unexpected results or impact have resulted from this project.

21. CHANGES IN DESIGN OR EXECUTION - As covered in Section 19, the project may be revised to provide assistance to TRDB for expansion of regional Bank services.

22. LESSONS LEARNED - This is probably one of the few project in agricultural credit which has thus far proven to be successful in Africa. Study of the methodology followed would prove fruitful for those contemplating similar projects in other African countries.

23. SPECIAL COMMENTS OR REMARKS - This project appears to be well planned. Messrs. Gollehon and Hodges are forward-looking individuals who carry out assigned responsibilities well and flexibly respond to changing personnel, managerial and administrative needs of the Bank.

It is very important to the success of the project that external influences on the need for credit be monitored closely, e.g., the development and expansion of TANSEED activity in certain regions may intensify credit requirements accordingly. The Bank should be ready to move expeditiously into these areas.

The lack of transport capability within Tanzania is general and the poor history of availability of transportation for moving inputs to the farmers in particular indirectly impinges on Bank activity. Where there are no inputs available, or the means to acquire them, there is little or no demand for credit.

Forward-planning in the Bank should be conducted with full knowledge of these and other similar constraints, especially in relation to the training of field staff, development of the District Office structure and in assumption of new challenges.

Department of State

OUTGOING TELEGRAM

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AMEMBASSY BANJUL

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AIDAC, ABIDJAN FOR REDSO/WA, NAIROBI FOR REDSO/EA

E.O. 12065N/A

TAGS:

SUBJECT: PROCEDURES FOR SUBMISSION OF PROJECT EVALUATION SUMMARIES (PES) IN CONNECTION WITH PROJECTS ADMINISTERED BY THE OFFICE OF AFRICA REGIONAL AFFAIRS (AFR/RA) "698"

REF: (A) PES FACE SHEET, 1330-13B; (B) A-510, DATED 12/3/78

1. THE FOLLOWING PROCEDURES HAVE BEEN ADOPTED BY AFR IN ORDER TO PROVIDE FOR UNIFORMITY (SEE REF A):

A. PROJECTS FOR WHICH ALLOTMENTS ARE SENT TO THE FIELD: BLOCK 4-PES NUMBER TO BE PROVIDED BY AFR/RA; BLOCK 11 - CLEARED BY APPROPRIATE AFR/RA PERSONNEL INCLUDING OFFICE DIRECTOR IN ADDITION TO OTHERS; BLOCK 12 - SIGNED BY SENIOR A.I.D. OFFICER IN THE FIELD.

B. PROJECTS FOR WHICH ALLOTMENTS REMAIN IN AID/W: BLOCK 4-PES NUMBER PROVIDED BY AFR/RA; BLOCK 11 - SIGNED AS INDICATED INCLUDING SENIOR A.I.D. OFFICER; BLOCK 12 - SIGNED BY AFR/RA OFFICE DIRECTOR.

2. ALL FIELD SUBMISSIONS (A AND B ABOVE) ARE TO BE SENT DIRECTLY TO AFR/RA WHICH WILL BE RESPONSIBLE FOR FURTHER DISTRIBUTION IN ACCORDANCE WITH ESTABLISHED PROCEDURES. CHRISTOPHER

DRAFTING OFFICE COPY

July 9, 1984

MEMORANDUM

TO : Don Mitchell

FROM : SDPI, Emmy Simmons

SUBJECT: SAFGRAD Evaluation

Attached please find the revised conclusions and suggestions for the FSU part of the evaluation and the pages of the text on which I thought changes should be made. I hope the scribbling is readable. I have decided to go along with your view that the ACPO recommendation can be dropped and have tried to stick to the points of conclusion which you selected in the rewrite. Hope Jo agrees with all this!

I was interested at the end of March to read the first draft evaluation and find the distinctly different levels of detail in the various sections. I was surprised that Howard had not included more concrete reviews of his discussions with the scientists and very surprised at the rosy glow which Connie imparted to the whole ACPO program. I did not agree at all with the conclusions of the economist and thought he contributed nothing to the overall review. Even I was offended at the bald statement about FSU being a failure and, of course, they were highly insulted.

I met with the FSU guys in mid-April both to receive and to give some more feedback on that evaluation. Woods Thomas was in town as well and it was good to meet with him. I understand -- although my initial news is still unconfirmed -- that the SAFGRAD/IFAD/FSR effort has decided to make Upper Volta its first farming systems research effort! I certainly hope this is not true as it would be an incredible case of coals to Newcastle, but I expect I won't find out the gory details until I get to Ouaga for the CDA Agricultural Research meeting in mid-September. I also heard that IVRAZ is finally going to have its organizational conference (Ministerial level) in early September, so maybe there will be other views as well.

All in all, I benefitted enormously from the SAFGRAD evaluation -- fully accomplished my objectives of learning about the program in depth even though my view of things obviously does not square with everyone else's. Thank you for letting me participate so thoroughly.

I expect that over the next few months this familiarity with the SAFGRAD project will come to good use as we push ahead with other regional research considerations in the CDA effort, as a regional project with INSAH -- put into the FY 86 ABS by AFR/SWA gets more fully conceptualized, and as USAID/Ouaga moves ahead with the

bilateral FSR project design. I spent a most combattive day and a half with Fran LeBeau and Bob Gray in mid-April in reaction to the sort of preliminary PID for SAFGRAD II which Fran had drawn up. I felt he had gone in completely the opposite direction indicated by the "lessons" of the SAFGRAD evaluation and was encouraging even more ambitious -- and more totally unattainable -- goals to be propounded for SAFGRAD II. I am sure that we will get a chance to discuss this again in the future; my own inclination at this point is to restrict the SAFGRAD Coordination Office (and thus the SAFGRAD II activities) strictly to coordination and dissemination.

In fact, I thought that page 154 of the draft evaluation summed up a perfect scope of work:

SAFGRAD can play a major role in facilitating research and the spread of research among member countries through:

- commodity research networks, including workshops and conferences;
- publishing proceedings from these meetings ;
- distributing research information;
- seeking funds from international donors to do specific kinds of research that are common to several countries;
- providing funds for training research workers where shortages of skilled technical people exist.

This seems admirably suited to OAU/SIRC and to the size of operation envisioned by AID and IFAD. Even these activities would stretch the available resources pretty thin and more money could be programmed in usefully.

I hope to be in the States the end of July and all of August, so will give you a call in case you have any violent disagreements with what I've enclosed here.

cc: Jo Albert, S&T/AGR
✔Bob Gray, AFR/RA

## SUMMARY

The FSU has conducted farming systems research from its base in Ouagadougou, Upper Volta, since early 1979. Purdue University was awarded the AID contract to implement this component of the SAFGRAD project in 1978. Between 1979 and 1983, Purdue has fielded three research teams: the first included an agricultural economist, an agronomist, and an anthropologist; the second team -- an agronomist and an agricultural economist -- came on board in 1982; and a third, again with the agronomy -agricultural economics composition -- will be in place for the 1984 season.

The major responsibilities in the original project paper included: application of new technologies to small farm conditions; conducting studies in farmers fields; formulating strategies for applying small farm technologies; recommending physical research priorities; and developing farming systems research (FSR) methodologies applicable to other SAFGRAD countries.

The FSU has focussed its research efforts only in Upper Volta, with emphasis on village-level, on-farm research. Other objectives -- particularly those involving regional action -- have been narrowed or eliminated. Formulation of strategies for development and application of small farm technology have been restricted, for example, to the formulation of a strategy for conducting on-farm trials in Upper Volta. The provision of recommendations regarding physical research priorities has been downplayed; more emphasis has been given to developing a method which can be used to guide to research. Regional training and consulting activities have been limited to the training of FSU's Voltaic employees and to identification of a method which could be implemented in national FSR programs.

The FSU is physically isolated from other components of the SAFGRAD project and apparently has had little interface with the commodity research scientists. As a result, the FSU has established its own agenda of agricultural practices to be tested in on-farm trials; conversely, it has had little impact on defining commodity research priorities or in getting other SAFGRAD researchers involved in farm-level activity.

## CONCLUSIONS

1. The FSU initially started with a team that was inexperienced in farming systems research and quickly became bogged down with an overabundance of data that has yet to be analyzed or put into a useful, accessible form. This initial "wrong" direction continues to the haunt the FSU team.

2. The FSU component of the SAFGRAD project was originally planned as a regional effort and was intended to provide both information useful to improving farming systems in the region as well as to providing methodological information useful for the conduct of farming systems research elsewhere. Since the FSU has

only worked in Upper Volta, however, little information on technologies tested there can be readily applied elsewhere in the region. The methodology for conducting research which has been developed in Upper Volta, while potentially of value to other countries in the region, has not yet been transferred elsewhere, and there are presently no plans -- beyond a few publications -- to do so.

3. Purdue University has provided less than half of the FSU staff from its own faculty, although in recent years all or the majority of the team members have come from the faculty. Presently, there is concern over the replacement of the agricultural economist of the 1982-83 team. AID has been unable to assure Purdue of funding beyond April, 1984, and this has delayed recruitment of a replacement.

4. Although the FSU team originally shared office space at the Kamboinse Research Station with other SAFGRAD researchers (commodity-oriented), the FSU recently moved to independent office quarters in Ouagadougou. In the process, the FSU has isolated itself from ICRISAT, IITA, and Voltaic researchers at Kamboinse and reduced the potential interaction with this group.

5. The major effort of the FSU has been expended on field surveys and on-farm trials in five to seven Voltaic villages. The quality of data collected and the analysis of the findings has steadily improved over the more than five years of the FSU existence. One can still critique certain aspects of both methodology and analyses (a subsistence farmer bias, inadequate examination and involvement of women, and a continuing need to take additional factors into analytical account, for example) but, overall, the development of a consistent methodology and increasingly fast turnaround on data collection and analysis must be applauded.

6. To date, the FSU has not generated a quantifiable benefit in development terms -- either in Upper Volta or in the SAFGRAD region. Analysis and publication costs ($1.2 million) have been unacceptably high. While a few of the recent FSU reports are excellent, the overall publication record is poor. Many reports are still being written; some of the earlier ones are unavailable. Considering that the field studies upon which the analyses are to be based have also cost some one million dollars, the cost-effectiveness of the project as a source of information for agricultural development in Upper Volta or in the SAFGRAD region can be questioned. A relatively small amount of project funds have been allocated for training, with only four Voltaic candidates for MS or PhD degrees currently studying at Purdue University.

## SUGGESTIONS AND RECOMMENDATIONS

Rather than calling for the FSU, the SAFGRAD Coordination Office, and AID to make heroic efforts to alter the course of project implementation, we are making only three recommendations which we

believe are actionable between now and the project termination date. However, several suggestions are made that we believe would strengthen FSU accomplishments.

Recommendations

1. The FSU should be fully staffed with expatriate researchers as stipulated in the Purdue contract and a training officers should be added in 1984 as recommended in the IAC Report for 1984. If budgetary restrictions preclude hiring such a training officer, the FSU should investigate other sources of technical assistance to enable a process of wider information dissemination about FSU findings and methods to be launched. The centrally-funded Farming Systems Support project could provide short-term technical assistane for such training, development of training materials, and networking.

2. During 1984 - 85, the FSU should plan a series of seminars and workshops for various Voltaic audiences to inform them in more depth of FSU findings and to get feedback on the perceived value of FSU research to date. The FSU must ensure that its efforts and those of other FSR programs (ICRISAT and IRAT) are also presented for joint review and discussion at the national level in Upper Volta.

3. The 1984 workplan should be pursued as indicated with two additions:

-- FSU should specifically seek to work more closely with the IITA cowpea research program; and

-- FSU should include female respondents in the village surveys. If appropriate, female interviewers should be hired as soon as possible to facilitate contacts with female agricultural laborers.

Suggestions

1. Purdue/FSU should seek ways to improve the analysis and publication record of the FSU between now and March 1985 by:

-- editing some of the earlier publications and re-issuing them in an acceptable professional format;

-- providing technical writer/editor assistance as necessary, particularly to ensure that draft documents from earlier team members are put into publishable shape and also to assist present team members to move rapidly toward publication;

-- providing data to graduate students seeking to do analytical papers, theses, etc.

-- installing a work processing package in Ouagadougou backed up by a letter-quality printer in West Lafayette; and

-- providing the current project agricultural economist, Mahlon Lang, the opportunity to analyze and write for a year.

2. FSU should seek to establish collegial contacts with other FSR projects in the Sahel for the purposes of:

-- sharing ideas on FSR techniques being used;

-- sharing analytical results
-- identifying useful exchange/training and networking opportunities.

3. AID and the Government of Upper Volta should give serious attention to continuing FSU research activities by locating them in the core of a national farming systems research program, with bilateral funding from AID.

4. The issue of the project office should be seriously reconsidered and the criterion of maximizing opportunities for research interaction be posed.

5. SAHGRAD, in developing any follow-on project, should take into account the experiences of the FSU to date, particularly those regarding personnel-institutional linkages, techniques and methods, and data management and analytical time requirements.

April 12, 1984

Mr. Donald R. Mitchell

Dear Don:

The preliminary copy of the final report on evaluation of SAFGRAD along with your letter of March 16 arrived here on Tuesday, April 10, from Dr. Robert E. Gray's office. Since you asked for our comments by April 15, I am responding as soon as time would permit.

First of all, permit me to commend you on doing such a good job in so short a time--I don't know how you did it. Your write-up is well coordinated. It must have been very difficult to try to fit together the various pieces--the rest of us really left you with much to be done.

I especially wish to commend you for including comments by the Purdue FSU team, which are interspersed in the text. This takes care of a problem which you will recall bothered me quite a bit. I thought we came down pretty hard on Purdue, and this gave them a chance to defend their position.

You indicated earlier that you intend to include a list of acronyms. I assume you still intend to do so, and I agree that such an inclusion is important.

In the "EXECUTIVE SUMMARY", sixth line from the bottom of page 4, insert the words "and/or finance" after the word "organize". The reason for this is that various conferences and field trips will and should be organized by project leaders.

Under "MAJOR CONCLUSIONS", page 6, no. 7, I would advise against such a statement as "...too much emphasis is placed on breeding". It is true that breeding has been supported better than other research aspects. But let's don't discourage any type of relevant research, rather let's place the

emphasis on supporting other aspects at an increased level.

You have tried faithfully to accommodate all of the contributors, which is commendable. However, I think more important is a good report--i.e. not pride of authorship by the individual Team members. The report is too long and unnecessarily so. The main portions of the program (research, FSU, ACPOs, and Training) are covered three times (largely repetitively) as follows: (1) once under the main titles in the earlier part of the report; (2) a second time under "Economic Evaluation of "SAFGRAD Activities"; and (3) a third time under "Project Management, Research Management, Part I". Much of the material in the latter two sections duplicates in substance of what appears in the earlier sections. To the extent that anything new is presented (there isn't too much), the material should be incorporated in the earlier sections.

Specifically, I recommend the following:

"ECONOMIC EVALUATION OF SAFGRAD ACTIVITIES," pages 93 through 112. This section contributes little and understandably so--to date SAFGRAD has had a very minor economic impact, as would be expected from a research and training program over so short a period of time.

Retain the "Introduction", pages 93 through 2nd paragraph, page 94.

Retain the section on "ISNAR", pages 108-109, but move it to become No. 11 following bottom page 159.

Eliminate the rest of this section. It is either repetitious or irrelevant in this report. For example "The Need", pages 99 through the first paragraph, page 101, consists largely of "traditional wisdom" and does not belong in the evaluation report--surely such information was presented in the PP, and will be repeated in the new PP.

Mr. Donald R. Mitchell (continued)

Eliminate "The coordinating role of SAFGRAD", pages 104 to 106. The material is covered elsewhere--furthermore this section does not contribute to an economic evaluation.

Also eliminate "Conclusions", pages 109 through 111; and Recommendations", pages 111 to 112, since they are irrelevant in this section and contribute nothing to an economic evaluation.

Finally, summarize the information on economic development (or rather the lack of such) in two or three paragraphs following the "Introduction".

"PROJECT MANAGEMENT, Part I", pages 113-137.

(1) Eliminate pages 114 through the first paragraph, page 116. Take care of this presentation by making reference to the Project Paper. No need repeating same.

(2) Eliminate the section entitled "Relationship of Inputs to Outputs", pages 118 through first paragraph on page 121. I don't like the tone of this section. Objectivity is most important in an evaluation--this section sounds as though the Evaluation Team is an advocate rather than a judge. It also gives the impression that SAFGRAD is the "good guys", whereas the IARCs and the universities are the "bad guys", who will bear watching.

This is not to say that SAFGRAD administration will not fill an important role. The extent of capabilities that can be assembled in SAFGRAD administration will of necessity be very small vis-a-vis those provided by the contracting agencies. I do not accept the statement in the middle of the page 118 that "...IARCs and the Universities alike, will provide research within their institutional framework and will tend to conduct it within the main stream of their research programs and resources". I think these organizationations are just as sincere and anxious to benefit the small farmer

Mr. Donald R. Mitchell (continued)

as is SAFGARD, AID, and other donors, the fact that one IITA maize scientist has some different ideas, notwithstanding.

The staff of SAFGARD's central office could become "personae non gratae" if they become too much of a watch-dog as encouraged in the discussion on pages 120 through first paragraph on page 121. Get good contractors, clearly spell out in the contract what is expected, and then don't interfere too much. That this can be done successfully is well illustrated by a cereal crops research project in Cameroon with IITA. Dr. George Alcorn, former Director of Extension, University of California, and I reviewed that program in depth last fall. Except for FSR, it pretty much parallels on a national basis what SAFGARD is attempting to do on an international basis. The staff consists of highly capable persons. They have one of the finest assistance programs that Dr. Alcorn and I have reviewed anywhere.

If too much control is exercised, creditable research agencies may not wish to participate, and should they do so, they might encounter difficulty in recruiting and retaining good scientists. The competition for good scientists is very great and the supply is limited.

(3) Retain "Resources of the Coordination Office", pages 121 through first paragraph, page 123.

(4) Retain "Operational Network of SAFGARD", page 123.

(5) Eliminate pages 124 through first paragraph, page 133. This is repetitious of earlier sections, except that to some extent the wording is different, and the term "management" is incorporated.

(6) Retain page 133 beginning with "USAID Management of SAFGARD" to the section entitled "Training" in page 135.

(7) Eliminate the rest of Part I, i.e. beginning with the section on "Training" on page 135 through page 137.

Mr. Donald R. Mitchell (continued)

"PROJECT MANAGEMENT -- PART II".

(1) Retain pages 138 through 147.

(2) Retain all of "Conclusions", pages 148 through 149, except:

(a) Eliminate No. 5 on page 148. I think directly or indirectly, overemphasize the work of the maize breeder. ICRISAT has a large FSR unit--generally I believe they are just as interested in the welfare of the small farmer as is SAFGARD.

(b) Eliminate No. 8 on page 149. Repetitious of earlier section on ACPOs.

(c) Eliminate or reword No. 12, page 149. Not as serious as this paragraph makes it sound. The soil and water work project by one man at Kamboinse and the work in Nigeria should be combined at one location in western Africa. However, there also needs to be an operation at some eastern point like Kenya.

(3) Retain all of "Recommendations", pages 150 through 151, except:

(a) Eliminate No. 3, page 150. This point should be treated in the Section on ACPOs.

In order not to delay sending this letter, I have not taken the additional time that would have been required for proof reading. There are some typographical errors which I assume will be corrected in typing the final copy.

Since you mention Bob Gray in your letter, I am sending a copy of this letter to him. It has been a pleasure to work with both of you as well as the other Team members. Good luck on completing the report.

Sincerely yours,

Elvin F. Frolik

Elvin F. Frolik

cc: Dr. Robert B. Gray
AFR/RA Room 4533 NS
Agency for International Development
Washington, D.C. 20523

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SPST-01 AFDA-01 ES-01 AGRE-01 RELO-01 MAST-01
/026 A2 323

INFO OCI 00 COPY-01 AF-00 CIAE-00 EB-06 DODE-00 /009 W
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P 2310402 AUG 84
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC PRIORITY 1462

UNCLAS OUAGADOUGOU 05055

AIDAC

FOR R.GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: ACHIEVEMENTS OF SAFGRAD SUPPORTED RESEARCH BY IITA AND ICRISAT.

REF.: STATE 243449

1. AS PER REFTEL PARA 5, USAID/BURKINA OFFICE OF AGRICULTURE (OAC) HAS REVIEWED THE TECHNICAL REPORTS SUBMITTED BY IITA AND THOSE AVAILABLE FROM ICRISAT TO GAUGE THE PROGRESS MADE TO DATE BY THE RESEARCH TEAMS SUPPORTED BY SAFGRAD. ALSO, INTERVIEWS WITH THE RESEARCHERS HELPED TO FILL MOST OF THE INFORMATION GAPS. THIS MESSAGE WILL LIST THE SIGNIFICANT ACHIEVEMENTS BY RESEARCH COMPONENT (I.E. MAIZE, COWPEA, SORGHUM, ETC.) WHICH INDICATE PROGRESS TOWARDS THE PROJECT'S OUTPUT GOALS.

2. IITA COWPEA PROGRAM: THE MAJOR CONSTRAINTS IDENTIFIED TO IMPROVED COWPEA PRODUCTION HAVE BEEN PESTS AND PLANT DISEASES. ALSO, IITA RESEARCH HAS SHOWN THAT COWPEA PRODUCTION CAN BE VERY MANAGEMENT RESPONSIVE. SIGNIFICANT ACHIEVEMENTS OF THE IITA COWPEA PROGRAM FOLLOW:

A. AFTER SCREENING SEVERAL THOUSAND LINES OF COWPEA ACROSS DIFFERING RAINFALL REGIMES, KN-1, A MULTIPLE DISEASE RESISTANT AND HIGH YIELDING VARIETY WAS RELEASED FOR MODERATE RAINFALL AREAS (700 MM) IN BURKINA-FASO. ANOTHER VARIETY, SUVITA-2, IS DROUGHT AND STRIGA RESISTANT AND POSSESSES GOOD SEED QUALITY AND GOOD YIELD, AND IT IS ADAPTED TO LOW-RAINFALL AREAS (LESS THAN 700 MM).

B. SOURCES OF RESISTANCE HAVE BEEN CONFIRMED OR IDENTIFIED FOR THE FOLLOWING INSECTS: BRUCHIDS (TVU 2027), APHIDS (TVU 3000, TVU 2396 AND TVU 36 AND A NEW BIOTYPE X), MARUCA (HAMBOINSE LOCAL AND TVU 946) AND THRIPS (TVX 3236 AND TVU 1509). ANTIBIOSIS WAS FOUND TO BE THE MAIN MECHANISM OF RESISTANCE TO APHIDS.

C. NEW INSECT RESISTANT VARIETIES COMBINING GOOD SEED QUALITY, RESISTANCE TO DISEASES, HIGH YIELDING AND WIDE ADAPTATION HAVE BEEN DEVELOPED OR IDENTIFIED. EXAMPLES INCLUDE: TVX 30-172-1-6K, TVX 30-223-1-3K, AND IT 82D-716. THESE VARIETIES COMBINE BRUCHIDS RESISTANCE AND OTHER CHARACTERS AND KVX 145-53-1, KVX 145-27-4, AND KVX 145-49-3 COMBINE APHID RESISTANCE AND OTHER CHARACTERS.

D. A SOURCE OF RESISTANCE TO THE PLANT PARASITE STRIGA HAS BEEN IDENTIFIED (SUVITA-2) AND THE RESISTANCE CONFIRMED AND ITS MODE OF RESISTANCE STUDIED. NEW VARIETIES COMBINING STRIGA WITH MULTIPLE-DISEASE AND INSECT RESISTANCE, GOOD SEED QUALITY, HIGH YIELD AND

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OTHER CHARACTERISTICS ARE IN PROGRESS.

Gray

E. PRELIMINARY INFORMATION ON PLANT AND ENVIRONMENTAL FACTORS ASSOCIATED WITH DROUGHT AND VARIETIES ADAPTED TO DRY ENVIRONMENTS HAVE BEEN IDENTIFIED. PRODUCE FLOWERING, PLANT ABILITY TO RECOVER FROM STRESS, EARLY PLANTING, TOLERANCE TO HIGH TEMPERATURE, SANDY SOILS AND SAND STORMS ARE IMPORTANT FACTORS. SUVITA-2 TVU 88-63, MOUGNE AND SB-57 HAVE A HIGH DEGREE OF DROUGHT TOLERANCE.

F. PROMISING EXTRA EARLY MATURING VARIETIES HAVE BEEN IDENTIFIED TO FIT INTO VARIOUS FARMING SYSTEMS. EXAMPLES: KVU 69, IT 82E-60, TI 82-885.

G. USE AND IMPORTANCE OF PHOTOPERIOD SENSITIVE COWPEA VARIETIES HAS BEEN ESTABLISHED (E.G. MAIZE/COWPEA RELAY CROPPING) AND PROMISING VARIETIES IDENTIFIED.

H. MAIZE/COWPEA RELAY CROPPING SYSTEMS SUITABLE FOR NORTHERN GUINEA SAVANNA AND SUDAN SAVANNA HAVE BEEN DEVELOPED AND THEIR SUPERIORITY OVER MONOCROP CULTIVATION ESTABLISHED.

I. OPTIMUM PLANT DENSITIES AND DATES OF PLANTINGS FOR DIFFERENT ECOLOGICAL ZONES HAVE BEEN ESTABLISHED.

J. P AND TO SOME EXTENT K AND S HAVE BEEN FOUND TO BE LIMITING SOIL NUTRIENTS. A DIFFERENTIAL CULTIVAR RESPONSE TO PHOSPHOROUS WAS FOUND. COWPEA VARIETY TVX 3236 HAS BEEN FOUND TO GIVE GOOD YIELDS WITH AND WITHOUT PHOSPHOROUS APPLICATION.

K. AGRONOMIC PRACTICES IN ABSENCE OF STRIGA RESISTANT VARIETIES, E.G. DATE OF PLANTING, TYPE OF CULTIVAR, ETC., HAVE BEEN DETERMINED WHICH CAN MINIMIZE STRIGA INFESTATION.

L. USE OF TIED RIDGES TECHNIQUE TO MAXIMIZE COWPEA YIELDS IN SUDAN SAVANNA HAS BEEN DEMONSTRATED. COWPEAS PLANTED ON TIED RIDGES PRODUCED AN AVERAGE OF 75 PERCENT HIGHER YIELD THAN PLANTED ON FLAT LAND.

M. ENCOURAGING RESULTS HAVE BEEN OBTAINED IN THE USE OF ZERO-TILLAGE MULCHING TO MAXIMIZE SOIL WATER INFILTRATION AND MINIMIZE SOIL EVAPORATION.

N. PROGRESS HAS BEEN MADE IN DETERMINING IMPROVED AGRONOMIC FACTORS FOR SORGHUM AND MILLET-COWPEA INTERCROPPING SYSTEMS.

O. INSECTICIDE TREATMENT AT THE BUD AND FLOWER INITIATION STAGE WAS FOUND TO CONTRIBUTE SIGNIFICANTLY TO FINAL COWPEA YIELD.

P. NEW AND SAFE INSECTICIDES BEING TESTED/EVALUATED.

3. IITA MAIZE PROGRAM: THE IITA MAIZE TEAM BEGAN ITS MAIZE PROGRAM IN 1979. AT THIS TIME THERE WAS, FOR ALL INTENTS AND PURPOSES, A COMPLETE LACK OF PREVIOUS RESEARCH IN MAIZE BREEDING, AGRONOMY AND PLANT PROTECTION IN THE SUDAN SAVANNA ZONE. SIGNIFICANT ACHIEVEMENTS OF THE IITA MAIZE PROGRAM FOLLOW:

A) TWO EARLY MATURING (80-90 DAYS), HIGH YIELDING VARIETIES HAVE BEEN DEVELOPED FOR THE SUDAN SAVANNA. THESE VARIETIES (SAFITA-2 AND SAFITA-103) HAVE BEEN WIDELY TESTED IN SAFGRAD NATIONAL PROGRAMS AND ARE IN PRE-RELEASE TESTING STAGE IN SEVERAL COUNTRIES.

B. ONE INTERMEDIATE (110 DAYS), HIGH YIELDING, SAFITA-

B. DESIGNING AND IMPLEMENTING A MAJOR STUDY OF ANIMAL TRACTION AS AN AID TO FARMER ADOPTION OF SOIL AN WATER MANAGEMENT PRACTICES.

C. CONDUCTING RESEARCH RELATED TO ROOT DISTRIBUTION OF SORGHUM AS AFFECTED BY TILLAGE OPERATIONS. THE MEASUREMENT OF WATER BALANCE, EROSION AND SOIL CHEMICAL LOSSES UNDER VARIOUS METHODS OF SOIL SURFACE MANAGEMENT.

D. RESEARCH ON THE STATISTICAL MEASUREMENT OF FIELD PLOT UNIFORMITY.

6. ICRISAT SORGHUM AND MILLET PROGRAM: THE SORGHUM AND MILLET PROGRAM WAS LOCATED AT SAMARU, NIGERIA. ICRISAT HAD DIFFICULTY MAINTAINING THE FULL COMPLEMENT OF RESEARCHERS AT SAMARU, BUT, NONETHELESS, PROGRESS WAS MADE IN MILLET AND SORGHUM BREEDING AND ENTOMOLOGICAL RESEARCH. SIGNIFICANT ACHIEVEMENTS OF THE ICRISAT SORGHUM AND MILLET PROGRAM FOLLOW:

A. APPROXIMATELY 1000 LINES OF SORGHUM OF TROPICAL ORIGIN WERE INTRODUCED AND CRITICALLY EVALUATED FOR VARIOUS ATTRIBUTES OF ADAPTIVE SIGNIFICANCE, INSECT AND DISEASE RESISTANCE, SUITABILITY FOR PLANTING ACROSS A RANGE OF ENVIRONMENTS, STANDABILITY, MOLD RESISTANCE AND YIELD.

B. A STUDY WAS DONE ON PLANT RESISTANCE TO STEM BORERS.

C. SEEDLING DEADHEARTS TRIALS WERE DONE IN SEVERAL LOCATIONS UNDER CONDITIONS OF NORMAL AND LATE PLANTING.

D. SCREENING OF BREEDING MATERIAL FROM DRY AND WET LOCATIONS UNDER DIFFERENT PLANTING TIMES ENABLED IDENTIFICATION OF LINES RESISTANT TO PREVALENT AND POTENTIAL PESTS AND ELIMINATION OF SUSCEPTABLE LINES.

E. SEVERAL PROMISING VARIETIES SELECTED FOR STRIGA RESISTANCE.

F. SIX IMPROVED VARIETIES OF NIGERIAN ORIGIN WERE CONDUCTED IN SEVERAL SAFGRAD COUNTRIES.

G. RESEARCH RESULTS ON HYBRIDIZATION INDICATE THAT SELECTION UNDER CAREFULLY PLANNED MATING SYSTEMS CAN RESULT IN HYBRID DERIVATIVES SUPERIOR TO THE ORIGINAL FORMS.

H. MILLET AND SORGHUM STEM BORERS POPULATIONS WERE FOLLOWED IN RELATION TO DATE OF PLANTING FOR EVALUATING BEST PLANTING DATE, AND RESISTANT MATERIALS USING NATURAL POPULATIONS.

I. SEVERAL MILLET AND SORGHUM LINES WERE EVALUATED FOR STEM BORER RESISTANCE AND SHOOTFLY RESISTANCE.

J. RESEARCH RELATED TO CROP LOSS ASSESSMENT AND RELATIONSHIP OF GRAIN WEIGHT TO INTENODES BORED HAS BEEN CARRIED OUT. NEHER

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INCOMING TELEGRAM

PAGE 01 OUAGAD 05036 210743Z 8438 056329 A103292 OUAGAD 05036 210743Z 8438 056329 A103292
ACTION AID-00

ACTION OFFICE AFRA-03
INFO AFEM-04 AFDP-06 AFDR-06 PPCE-01 PPPB-02 STAG-02 SAST-01
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INFO OCT-00 AF-03 CIAE-00 EB-08 DODE-00 /000 W
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P 210737Z AUG 84
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC PRIORITY 1431

UNCLAS OUAGADOUGOU 05036

AIDAC

E.O. 12356: N/A
SUBJECT: SAFGRAD, 698-0393, PROJECT EVALUATION

REF.: STATE 241839

AS PER REFTEL PARA 3, THERE HAS BEEN TO DATE 12 TECHNICAL WORKSHOPS HELD UNDER THE SAFGRAD PROJECT. THESE ARE: MAIZE WORKSHOP, OUAGADOUGOU, FEB. 1979, ORGANIZED IN CONJUNCTION WITH IITA, 45 PARTICIPANTS FROM 15 COUNTRIES;

- COWPEA AND MAIZE WORKSHOP, OUAGADOUGOU, FEB. 1980, ORGANIZED IN CONJUNCTION WITH IITA, 62 PARTICIPANTS FROM 15 COUNTRIES;

- MILLET AND SORGHUM WORKSHOP, MOMBASSA, FEB., 1980, ORGANIZED IN CONJUNCTION WITH ICRISAT, 41 PARTICIPANTS FROM 13 COUNTRIES;

- FARMING SYSTEMS RESEARCH WORKSHOP, DAKAR, JAN. 1981, ORGANIZED IN CONJUNCTION WITH PURDUE UNIVERSITY, 72 PARTICIPANTS FROM 16 COUNTRIES;

- MAIZE AND COWPEA WORKSHOP, IBADAN, FEB. 1981, ORGANIZED IN CONJUNCTION WITH IITA, 67 PARTICIPANTS FROM 20 COUNTRIES;

- MILLET AND SORGHUM WORKSHOP, GABORONE, MARCH 1981, ORGANIZED IN CONJUNCTION WITH ICRISAT, 47 PARTICIPANTS FROM 14 COUNTRIES;

- MAIZE AND COWPEA WORKSHOP, OUAGADOUGOU, MARCH 1982, ORGANIZED IN CONJUNCTION WITH IITA, 48 PARTICIPANTS FROM 12 COUNTRIES;

- MAIZE AND COWPEA WORKSHOP, OUAGADOUGOU, APRIL 1983, ORGANIZED IN CONJUNCTION WITH IITA, 63 PARTICIPANTS FROM 19 COUNTRIES;

- MILLET AND SORGHUM WORKSHOP, KIGALI, JUNE 1983, ORGANIZED IN CONJUNCTION WITH ICRISAT;

- FARMING SYSTEMS RESEARCH WORKSHOP, OUAGADOUGOU, SEPT. 1983, ORGANIZED IN CONJUNCTION WITH ICRISAT AND IRAT, 63 PARTICIPANTS FROM 8 COUNTRIES AND 16 INTERNATIONAL ORGANIZATIONS;

- MAIZE AND COWPEA WORKSHOP, IBADAN, MARCH 1984, ORGANIZED IN CONJUNCTION WITH IITA, 84 PARTICIPANTS; AND

- MILLET AND SORGHUM WORKSHOP, DAR ES SALAAM, JULY 1984, ORGANIZED IN CONJUNCTION WITH ICRISAT, 40 PARTICIPANTS.
NEHER

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Department of State

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ACTION OFFICE AFRA-03
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FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC PRIORITY 1431

UNCLAS OUAGADOUGOU 05038

AIDAC

E.O. 12356: N/A
SUBJECT: SAFGRAD, 686-0393, PROJECT EVALUATION

REF.: STATE 241639

AS PER REFTEL PARA 3, THERE HAS BEEN TO DATE 12 TECHNICAL WORKSHOPS HELD UNDER THE SAFGRAD PROJECT. THESE ARE:
MAIZE WORKSHOP, OUAGADOUGOU, FEB. 1979, ORGANIZED IN CONJUNCTION WITH IITA, 45 PARTICIPANTS FROM 15 COUNTRIES;

- COWPEA AND MAIZE WORKSHOP, OUAGADOUGOU, FEB. 1980, ORGANIZED IN CONJUNCTION WITH IITA, 62 PARTICIPANTS FROM 15 COUNTRIES;

- MILLET AND SORGHUM WORKSHOP, MOMBASSA, FEB., 1980, ORGANIZED IN CONJUNCTION WITH ICRISAT, 41 PARTICIPANTS FROM 13 COUNTRIES;

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- MAIZE AND COWPEA WORKSHOP, IBADAN, FEB. 1981, ORGANIZED IN CONJUNCTION WITH IITA, 67 PARTICIPANTS FROM 20 COUNTRIES;

- MILLET AND SORGHUM WORKSHOP, GABORONE, MARCH 1981, ORGANIZED IN CONJUNCTION WITH ICRISAT, 47 PARTICIPANTS FROM 14 COUNTRIES;

- MAIZE AND COWPEA WORKSHOP, OUAGADOUGOU, MARCH 1982, ORGANIZED IN CONJUNCTION WITH IITA, 48 PARTICIPANTS FROM 12 COUNTRIES;

- MAIZE AND COWPEA WORKSHOP, OUAGADOUGOU, APRIL 1983, ORGANIZED IN CONJUNCTION WITH IITA, 53 PARTICIPANTS FROM 19 COUNTRIES;

- MILLET AND SORGHUM WORKSHOP, NIGALI, JUNE 1983, ORGANIZED IN CONJUNCTION WITH ICRISAT;

- FARMING SYSTEMS RESEARCH WORKSHOP, OUAGADOUGOU, SEPT. 1983, ORGANIZED IN CONJUNCTION WITH ICRISAT AND IRAT, 63 PARTICIPANTS FROM 8 COUNTRIES AND 16 INTERNATIONAL ORGANIZATIONS;

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- MILLET AND SORGHUM WORKSHOP, DAR ES SALAAM, JULY 1984, ORGANIZED IN CONJUNCTION WITH ICRISAT, 40 PARTICIPANTS.
NEHER

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PAGE 01 OUAGAD 05038 210743Z 8488 056329 AID0292 OUAGAD 05038 210743Z 8488 056329 AID0292
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ACTION OFFICE AFRA-01
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TO SECSTATE WASHDC PRIORITY 1431

UNCLAS OUAGADOUGOU 05038

AIDAC

E.O. 12356: N/A
SUBJECT: SAFGRAD, 698-0393, PROJECT EVALUATION

REF.: STATE 241839

AS PER REFTEL PARA 3, THERE HAS BEEN TO DATE 12 TECHNICAL WORKSHOPS HELD UNDER THE SAFGRAD PROJECT. THESE ARE: MAIZE WORKSHOP, OUAGADOUGOU, FEB. 1979, ORGANIZED IN CONJUNCTION WITH IITA, 45 PARTICIPANTS FROM 15 COUNTRIES;

- COWPEA AND MAIZE WORKSHOP, OUAGADOUGOU, FEB. 1980, ORGANIZED IN CONJUNCTION WITH IITA, 62 PARTICIPANTS FROM 15 COUNTRIES;

- MILLET AND SORGHUM WORKSHOP, MOMBASSA, FEB., 1980, ORGANIZED IN CONJUNCTION WITH ICRISAT, 41 PARTICIPANTS FROM 13 COUNTRIES;

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- MAIZE AND COWPEA WORKSHOP, IBADAN, FEB. 1981, ORGANIZED IN CONJUNCTION WITH IITA, 67 PARTICIPANTS FROM 20 COUNTRIES;

- MILLET AND SORGHUM WORKSHOP, GABORONE, MARCH 1981, ORGANIZED IN CONJUNCTION WITH ICRISAT, 47 PARTICIPANTS FROM 14 COUNTRIES;

- MAIZE AND COWPEA WORKSHOP, OUAGADOUGOU, MARCH 1982, ORGANIZED IN CONJUNCTION WITH IITA, 48 PARTICIPANTS FROM 12 COUNTRIES;

- MAIZE AND COWPEA WORKSHOP, OUAGADOUGOU, APRIL 1983, ORGANIZED IN CONJUNCTION WITH IITA, 63 PARTICIPANTS FROM 19 COUNTRIES;

- MILLET AND SORGHUM WORKSHOP, KIGALI, JUNE 1983, ORGANIZED IN CONJUNCTION WITH ICRISAT;

- FARMING SYSTEMS RESEARCH WORKSHOP, OUAGADOUGOU, SEPT. 1983, ORGANIZED IN CONJUNCTION WITH ICRISAT AND IRAT, 63 PARTICIPANTS FROM 8 COUNTRIES AND 16 INTERNATIONAL ORGANIZATIONS;

- MAIZE AND COWPEA WORKSHOP, IBADAN, MARCH 1984, ORGANIZED IN CONJUNCTION WITH IITA, 84 PARTICIPANTS; AND

- MILLET AND SORGHUM WORKSHOP, DAR ES SALAAM, JULY 1984, ORGANIZED IN CONJUNCTION WITH ICRISAT, 40 PARTICIPANTS.
NEHER



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INCOMING TELEGRAM

PAGE 01 OUAGAD 02030 291136Z 7081 062535 AID1176

ACTION AID-00

GRAY Wyckoff

ACTION OFFICE AFRA-03

INFO AFFW-04 AFDR-06 CMGT-02 PASA-02 AGRI-01 RELO-01 MAST-01 /020 A5 230

INFO OCT-00 AF-00 /035 W

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FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC 9677

UNCLAS OUAGADOUGOU 02030

AIDAC

FOR AFR/RA

E.O. 12356: N/A
SUBJECT: SAFGRAD (698-0393)

REF: STATE 88718

USAID/UPPER VOLTA CONCURS IN TRAVEL OF GRAY, LEBEAU, FERGUSEN AND DIALLO TO UPPER VOLTA ON SUBJECT PROJECT. WILL MEET AT AIRPORT. RESERVATIONS MADE AT SILMANDE.
WALKER

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Department of State

INCOMING TELEGRAM

PAGE 01 OUAGAD 01447 0708047 0006 044195 AID8678

ACTION AID-00

Gray

ACTION OFFICE AFRA-03

INFO AAAF-02 AFEW-04 AFDP-06 AFDR-06 PPCI-01 PPPB-02 SMO-01
EOMS-03 AIDA-01 AGRI-01 REIO-01 MAST-01 /032 A1 11-7

INFO OCT-00 AF-00 AGRE-01 /036 W

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R 062157Z MAR 84
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC 9352

C: Silvoke

UNCLAS OUAGADOUGOU 01447

AIDAC

FOR AFR/RA, USDA/OICD

E.O. 12356: N/A
SUBJECT: SAFGRAD PROJECT (698-0393) EVALUATION.

REF: A) STATE 49775, B) PIO/T 698-0393-2-20047

PIO/T AMENDMENT FOR SAFGRAD EVALUATION (REF B) IS IN USAID/UPPER VOLTA APPROVAL AND CLEARANCE PROCESS. AMENDMENT BUDGET IS FOR USD 103,375. THE INCREASE FROM THE USDA BUDGET OF USD 98,875 IS TO PROVIDE FOR LOCAL OPERATING EXPENSES (CAR RENTAL, OFFICE SUPPLIES, SECRETARIAL SERVICES ETC.). USAID/UV ESTIMATES PIO/T AMENDMENT WILL BE POUCHED THE WEEK OF MARCH 12, 1984.
WALKER

Department of State Gray

INCOMING TELEGRAM

PAGE 01 OUAGAD 01196 241242Z 7377 035193 AID8173
ACTION AID-00

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ACTION OFFICE AGRI-01
INFO AFEM-03 AFRA-03 AFFW-04 AFDR-06 RELO-01 MAST-01 AFPM-01
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P 241225Z FEB 84
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC PRIORITY 9211

UNCLAS OUAGADOUGOU 01196

AIDAC

PASS TO OICD/USDA, P. KOFFSKY

E.O. 12356: N/A
SUBJECT: SAFGRAD 698-0393 TRAVEL OF EVALUATION TEAM

1. GRAY AND FROLIK PLAN TO DEPART OUAGADOUGOU FOR PARIS ON MARCH 1 ON RK 301/UTA 852 ALONG WITH EVALUATION TEAM MEMBERS MITCHELL, MC KENNA AND POIRIER.

2. QPON ARRIVAL IN PARIS, GRAY AND MITCHELL PLAN TO TAKE AIR FRANCE 806 TO LONDON HEATHROW AND THEN PAA FLT. 107 NON-STOP FROM LONDON TO DULLES. THIS ARRANGEMENT WILL SAVE SEVERAL HOURS OF WAITING AND FLIGHT TIME.

3. LOCAL AIRLINE OFFICES ADVISE THAT THEY CANNOT CHANGE GRAY AND MITCHELL TICKETS FROM TWA TO PAA FOR TRANS-ATLANTIC PORTION OF TRIP AS THERE IS NO TWA OFFICE HERE TO CONCUR WITH CHANGE. PLEASE ADVISE SOONEST HOW THIS CAN BE DONE.

4. FROLIK DELETING REST STOP IN PARIS AND RETURNING MARCH 2 TO LINCOLN VIA JFK.

5. FYI: GRAY AND FROLIK DID NOT TRAVEL TO KENYA AS ORIGINALLY PLANNED. ICRIEET/SAFGRAD RESEARCHER BHARANE TRAVELLED FROM NAIROBI TO OUAGADOUGOU FOR EVALUATION REVIEW. WALKER

Department of State Gray

INCOMING TELEGRAM

PAGE 01 DAKAR 01869 230829Z 0026 035275 AID6635
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INFO AFRA-03 AFFW-04 AFDR-06 STAG-02 SAST-01 RELO-01 MAST-01
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INFO OCT-00 AF-00 /035 W
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FM AMEMBASSY DAKAR
TO AMEMBASSY BAMAKO
INFO SECSTATE WASHDC 5833
AMEMBASSY OUAGADOUGOU

UNCLAS DAKAR 01869

AIDAC
PASS TO SIMMONS, SDPT

E.O. 12356: N/A
SUBJECT: SAFGRAD EVALUATION

REF: SIMMONS/ALBERT CONVERSATION

1. AS PER REFCON, J. ALBERT S AND T/AG REQUESTS MISSION CONCURRENCE FOR 2 DAY STOP-OVER BAMAKO EN ROUTE OUAGADOUGOU.

2. ALBERT WILL WORK WITH SIMMONS ON WRITE-UP OF SAFGRAD EVALUATION. BRAY

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INCOMING TELEGRAM

PAGE 01 NAIROB 05521 211210Z 9648 032827 AID4645

ACTION AID-00

Gray

INFO AFEM-03 AFEA-03 AFRA-03 AFFW-04 RELO-01 MAST-01 AFPM-01 /016 A4 821

INFO OCT-00 AF-00 /035 W

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R 211202Z FEB 84
FM AMEMBASSY NAIROBI
TO AMEMBASSY OUAGADOUGOU
INFO SECSTATE WASHDC 5119

UNCLAS NAIROBI 05521

AIDAC

OUAGADOUGOU FOR DR. GRAY, SAFGRAD EVALUATION TEAM

E.O. 12356: N/A
SUBJECT: ETA DR. BIRHANI - ICRISAT, PROJECT NO. 698-0393

REFERENCE: (A) STATE 019337, (B) NAIROBI 02922, (C) STATE 028526, (D) STATE 032906, (E) STATE 037288, (F) STATE 042340, (G) OUAGADOUGOU 564, (H) STATE 43000

1. DR. BIRHANI HAS JUST ARRIVED FROM INDIA.

2. HE WILL ARRIVE OUAGADOUGOU ON FEBRUARY 21 TO CONSULT WITH SAFGRAD TEAM PER REQUEST. THOMAS

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Department of State

INCOMING TELEGRAM

PAGE 01 DAKAR 01587 142035Z 6192 029790 AID9700

ACTION AID-00

Gray

ACTION OFFICE AFRA-03

INFO AFEM-03 AFFW-04 RELO-01 MAST-01 AFPM-01 /013 A4 816

INFO OCT-00 AF-00 /035 W

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R 141606Z FEB 84
FM AMEMBASSY DAKAR
TO AMEMBASSY OUAGADOUGOU
INFO SECSTATE WASHDC 5680

UNCLAS DAKAR 01587

AIDAC
OUAGADOUGOU FOR R. BLOOM
STATE FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: SAFGRAD EVALUATION - TRAVEL AUTHORIZATION

REF: OUAGADOUGOU 00787

1. USAID AND GOS CONCUR WITH TRAVEL OF CONSTANCE MCKENNA, JOCELYNE ALBERT AND ROGER BLOOM TO SENEGAL TO CARRY OUT EVALUATION OF SAFGRAD PROJECT FROM FEBRUARY 15 TO 21, 1984 AS PER REFTEL.

2. MISSION ARRANGING REQUESTED APPOINTMENTS WITH USAID AND ISRA OFFICIALS.

3. HOTEL ARRANGEMENTS MADE AT NOVOTEL.

4. SUGGEST TEAM BE PREPARED TO RENT VEHICLE FOR TRAVEL TO BAMBEY AND USE DURING EVALUATION. BRAY



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*Department of State*

INCOMING TELEGRAM

PAGE 01 PARIS 06112 1411147Z 2924 027129 AID9071

ACTION AID-00

INFO AFRA-03 AFFW-04 AFDR-06 PPC[illegible]-[illegible] PPPB-02 PPDC [illegible] AFDA-01
RELO-01 MAST-01 /020 A1

INFO OCT-00 EPR-00 AF-00 [illegible] W
-------274100 1411157 /38

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FM AMEMBAS[illegible] PARIS
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AIDAC

E.O. 12356: N/A
SUBJECT: SAFGRAD 698-0393; EVALUATION TEAM

GRAY AND FROLIK MISSED CONNECTION IN PARIS. ETA WEDNESDAY FEBRUARY 15 VIA RK 330 FROM DAKAR. GALBRAITH

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# Department of State

INCOMING TELEGRAM

PAGE 01 OUAGAD 00856 081614Z 6626 023945 AID3794
ACTION AID-00

ACTION OFFICE AFRA-03
INFO AFDM-03 AFFW-04 AFDR-06 PPCE-01 PPPB-02 RELO-01 MAST-01
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INFO OCT-00 AF-00 CIAE-00 EB-08 DODE-00 AMAD-01 /044 W
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FM AMEMBASSY OUAGADOUGOU
TO AMEMBASSY DAKAR PRIORITY
INFO SECSTATE WASHDC 9034

UNCLAS OUAGADOUGOU 00856

AIDAC

FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: SAFGRAD PROJECT, 698-0393 EVALUATION TEAM VISIT TO SENEGAL.

REF: OUAGADOUGOU 787

1. ROGER BLOOM, USAID/UV SAFGRAD PROJECT MANAGER, ETA DAKAR IS FEBRUARY 15 RK 105 AT 1800. USAID/UV REQUESTS MEETING FOR BLOOM WITH USAID/DAKAR SAFGRAD PROJECT BACKSTOP OFFICER AND CONTROLLER FOR FEBRUARY 16 TO DISCUSS SENEGAL ACPO PROGRAM AND OUTSTANDING FINANCIAL ISSUES AS INDICATED REFTEL PARA 3. PLEASE MAKE HOTEL RESERVATIONS FOR BLOOM FOR THE NIGHT OF FEBRUARY 15. BLOOM IS TO PARTICIPATE IN WAIST AND WILL BE LODGED AT SPONSOR'S HOUSE FROM FEBRUARY 16-20. ALSO, IF FACILITIES EXIST, PLEASE MEET AND ASSIST BLOOM AT AIRPORT.

2. CONSTANCE MCKENNA, TRAINING/EXTENSION SPECIALIST, AND JOCELYNE ALBERT, SOCIAL SCIENTIST, ETA FEBRUARY 16 RK 301 AT 2025. USAID/UV REQUESTS HOTEL RESERVATIONS FOR MCKENNA AND ALBERT FOR FEBRUARY 16-19 AND PLEASE MEET AND ASSIST AT AIRPORT. ETD MCKENNA AND ALBERT FEBRUARY 20.

3. PLEASE ADVISE IF USAID/DAKAR HAS BEEN ABLE TO ARRANGE APPOINTMENTS AS REQUESTED REFTEL PARA 2 AND OF MOST CONVENIENT TRAVEL ARRANGEMENTS TO BAMBEY RESEARCH STATION. YOUR HELP IN THIS EFFORT IS VERY MUCH APPRECIATED.
WALKER

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INCOMING TELEGRAM

PAGE 01 OUAGAD 00844 080929Z 5019 0 1831 A103430
ACTION 1-00

ACTION OFFICE AFRA-03
INFO -02 AFFW-04 AFCW-03 AFDR-06 PPCE-01 PPPB-02 STAG-02
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FM AMEMBASSY OUAGADOUGOU
TO AMEMBASSY LOME
INFO SECSTATE WASHDC 9019

UNCLAS OUAGADOUGOU 00844

AIDAC

FOR P GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: SEMI-ARID FOOD GRAIN RESEARCH AND DEVELOPMENT (SAFGRAD) PROJECT EVALUATION.

1. THE SAFGRAD PROJECT EVALUATION IS CURRENTLY IN PROGRESS AND IS SCHEDULED TO BE COMPLETED MARCH 2, 1984. THE EVALUATION TEAM IS REVIEWING ALL PROJECT COMPONENTS, AND THIS INCLUDES THE ACCELERATED CROP PRODUCTION OFFICER (ACPO) PROGRAMS FINANCED BY USAID'S SUPPORT TO SAFGRAD IN CAMEROON, SENEGAL, MALI, AND UPPER VOLTA. AS THE ACPO PROGRAM IN TOGO IS FINANCED BY FAO, THE EVALUATION TEAM FEELS THAT IT WOULD BE INSIGHTFUL TO REVIEW THE ACPO TOGO PROGRAM AS MUCH INFORMATION COULD BE GAINED IN TERMS OF RESEARCH APPROACHES AND PHILOSOPHIES VIS A VIS THOSE OF OTHER ACPO PROGRAMS.

2. THE PRESENT ACPO FOR TOGO, MR. ROBERT MARTIN, IS AFFILIATED WITH THE TOGOLESE NATIONAL RESEARCH PROGRAM AND IS CONDUCTING RESEARCH TRIALS IN THE LAMA KARA AREA. MR. MARTIN IS ASSISTED BY TOGOLESE COUNTERPART MR. MPO BATOUSI. USAID/UV WOULD LIKE TO ARRANGE FOR A VISIT TO LAMA KARA FOR CONSTANCE MCKENNA, TRAINING/EVALUATION SPECIALIST ON EVALUATION TEAM TO REVIEW MARTIN AND BATOUSI'S PROGRAM. USAID/UV NOR OAU/STRC HAS A MEANS OF CONTACTING MARTIN TO ARRANGE FOR A VISIT. USAID/UV, THUS, REQUESTS ANY INFORMATION WHICH CAN BE PROVIDED BY OAR/LOME BY WHICH USAID/UV CAN CONTACT MR. MARTIN OR BATOUSI, I.E. TELEX NO., ADDRESS, ETC; OR IF OAR/LOME HAS A MEANS OF OR IS IN A POSITION TO CONTACT MARTIN OR BATOUSI, USAID/UV WOULD APPRECIATE OAR/LOME ARRANGE AN APPOINTMENT WITH THEM ON/ABOUT FEBRUARY 23. ANY ASSISTANCE THAT OAR/LOME CAN PROVIDE IN THIS EFFORT IS GREATLY APPRECIATED. WALKER

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PAGE 01 NAIROB 03962 061148Z 4535 021573 AID1497
ACTION AID-00

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ACTION OFFICE AFRA-03
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P 061145Z FEB 84
FM AMEMBASSY NAIROBI
TO SECSTATE WASHDC PRIORITY 4644

UNCLAS NAIROBI 03962

AIDAC

E.O. 12356: N/A
SUBJECT: SAFGRAD (698-0393): EVALUATION TEAM VISIT

REFS: (A) STATE 32996, (B) NAIROBI 2922

1. NOTWITHSTANDING REF A, PLEASE RESPOND REF B WHICH ADVISES SAFGRAD/ICRISAT BIRHANI PREFERENCE FOR VISIT AFTER FEBRUARY 20. HE WILL NOT BE AVAILABLE PROPOSED DATES - FEBRUARY 15-18. CAN TEAM EFFECTIVELY CARRY OUT SOW WITHOUT BIRHANI?

2. ADVISE. CONCURRENCE BEING WITHHELD PENDING RESPONSE.
HOUDEK

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PAGE 01 OUAGAD 00787 061239Z 4664 021583 AID1523
ACTION AID-00

ACTION OFFICE AFRA-03
INFO AAAF-02 AFFW-04 AFDP-06 AFDR-06 PPCE-01 PPPB-02 FM-02
AFDA-01 AGRI-01 RELO-01 MAST-01 /030 A1 11-6

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P 061230Z FEB 84
FM AMEMBASSY OUAGADOUGOU
TO AMEMBASSY DAKAR PRIORITY
INFO SECSTATE WASHDC 8989

UNCLAS OUAGADOUGOU 00787

AIDAC

FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: SAFGRAD PROJECT, 698-0393, EVALUATION TEAM VISIT TO SENEGAL.

1. TWO MEMBERS OF THE SAFGRAD EVALUATION TEAM, CONSTANCE MCKENNA TRAINING/EXTENSION SPECIALIST, AND JOCELYNE ALBERT, SOCIAL SCIENTIST S AND T AGRICULTURE, ARE PLANNING TO VISIT DAKAR AND THE AGRICULTURAL RESEARCH STATION AT BAMBEY ON/ABOUT FEBRUARY 15, 1984 TO EVALUATE THE ACCELERATED CROP PRODUCTION OFFICER (ACPO) PROGRAM. ADDITIONALLY, ROGER BLOOM, PROJECT MANAGER USAID/UV, WILL ACCOMPANY THEM TO DISCUSS PROJECT MANAGEMENT ISSUES AND PROBLEMS WITH THE USAID/DAKAR SAFGRAD PROJECT BACK-STOP OFFICER AND CONTROLLER. EVALUATION TEAM'S ETD IS FEBRUARY 21, 1984. USAID/DAKAR COUNTRY CLEARANCE FOR THESE INDIVIDUALS IS REQUESTED.

2. USAID/UV REQUESTS AN APPOINTMENT WITH USAID/DAKAR SAFGRAD PROJECT BACKSTOP OFFICER AND CONTROLLER FOR FEBRUARY 16. USAID/UV FURTHER REQUESTS APPOINTMENTS WITH MR. MANKEUR FALL, ACPO SENEGAL; MR. MBODJ MAHAWA, DIRECTOR OF THE BAMBEY RESEARCH STATION; AND THE DIRECTOR GENERAL OF ISRA FOR FEBRUARY 17. ANY ADDITIONAL SENEGALESE OFFICIALS WHICH USAID/DAKAR CONSIDERS IMPORTANT TO EVALUATION EFFORT SHOULD BE ADDED TO THIS LIST.

3. FOR USAID/DAKAR CONTROLLER'S OFFICE: ACCORDING TO USAID/UV'S RECORDS AN UNLIQUIDATED COMMITMENT OF USD 36,187.50 EXISTS FOR ACPO SENEGAL ACTIVITIES. THE MOST RECENT VOUCHER PROCESSED WAS FOR JANUARY-MARCH 1983 PERIOD. ANY FURTHER INFORMATION OR HELP IN RESOLVING THIS OUT-STANDING PROBLEM WOULD BE HELPFUL.

4. PLEASE ADVISE BEST POSSIBLE TRANSPORTATION ARRANGE-MENTS TO BAMBEY I.E. WOULD A MISSION VEHICLE BE AVAILABLE, CAR RENTAL, ETC.?

5. PLEASE MAKE HOTEL RESERVATIONS FOR MCKENNA, ALBERT AND BLOOM FOR FEBRUARY 15 AND MCKENNA AND ALBERT FOR FEBRUARY 16-20 AS BLOOM IS TO PARTICIPATE IN WAIST AND WILL BE LODGED AT SPONSOR'S HOUSE FROM 16-20. USAID/UV WILL ADVISE OF EXACT ETA'S AS SOON AS KNOWN. YOUR HELP AND COOPERATION IN THIS EFFORT IS VERY MUCH APPRECIATED. WALKER

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INCOMING TELEGRAM

PAGE 01 YAOUND 00886 030709Z 4334 019858 AID8688
ACTION AID-00

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AFPM-01 /022 A4 83

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INFO SECSTATE WASHDC 4102

UNCLAS YAOUNDE 0886

AIDAC

OUAGADOUGOU FOR ADO, J. BECKER

SECSTATE FOR AFRICA, R. GRAY

E.O. 12356: N/A
TAGS:
FBJ: SAFGRAD, 698-0393; TRAVEL OF C. MCKENNA AND
J. ALBERT TO CAMEROON FOR SAFGRAD EVALUATION

REF OUAGADOUGOU 00882

1. MISSION AND THE DIRECTOR OF THE INSTITUTE OF AGRICULTURE RESEARCH (IRA) CONCUR ON THE VISIT AS OUTLINED IN REFTEL.

2. PROJECT OFFICER MOUSTAFA IS AVAILABLE TO MEET THE EVALUATORS ON FEBRUARY 6 AS REQUESTED. IRA DIRECTOR, AVAILABLE TO MEET THE EVALUATOR DURING THE WEEK OF FEBRUARY 6.

3. AIE DRIVER WILL MEET AND ASSIST AT YAOUNDE AIRPORT

4. PLEASE ADVISE ETA OF J. ALBERT AND THE EXACT TRAVEL ITINERARY OF BOTH (*) CABLE.

5. MOUSTAFA WILL BE IN MAROUA FEBRUARY 8-10.
REGARDS.
MILAM

NOTE BY OC/T: (*) OMISSION. CORRECTION TO FOLLOW.

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INCOMING TELEGRAM

PAGE 01 OUAGAD 00676 011111Z 3396 017774 AID6363
ACTION AID-00

ACTION OFFICE AFRA-03
INFO AAAF-02 AFFW-04 AFDR-06 AFCA-03 IT-06 AFDA-01 RELO-01
TELE-01 MAST-01 /028 A4 81

INFO OCT-00 AF-00 /035 W
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FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC IMMEDIATE 8927
INFO AMEMBASSY YAOUNDE

UNCLAS OUAGADOUGOU 00676

AIDAC

FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: SAFGRAD EVALUATION

REF: STATE 26788

1. USAID CONCURS IN J. ALBERT'S PARTICIPATION ON SAFGRAD EVALUATION TO CARRY OUT SOW AS CONTAINED IN REFTEL. ALBERT SHOULD ARRIVE YAOUNDE ON FEBRUARY 4 WHERE SHE WILL JOIN CONSTANCE MCKENNA, TRAINING/EXTENSION SPECIALIST. USAID/UV HAS REQUESTED A MEETING WITH THE USAID/YAOUNDE SAFGRAD PROJECT MANAGER FOR FEBRUARY 6. IT IS, THEN, SCHEDULED FOR MCKENNA AND ALBERT TO TRAVEL TO MAROUA, CAMEROON FEBRUARY 7-8 TO REVIEW ACPO CAMEROON PROGRAM AND RETURN TO UPPER VOLTA FEBRUARY 9 OR 10.

2. MCKENNA ETA YAOUNDE IS 2235 FEBRUARY 3 VIA AIR CAMEROON 758. USAID/UV HAS REQUESTED USAID/YAOUNDE TO MAKE HOTEL RESERVATIONS AND MEET AT AIRPORT. ALBERT SHOULD ADVISE USAID/YAOUNDE OF EXACT ETA AND FLIGHT NUMBER.

3. TRAVEL TO SENEGAL IS TENTATIVELY SCHEDULED FOR FEBRUARY 16-20 AND MALI FEBRUARY 20. RETURN TO UPPER VOLTA FEBRUARY 22. WALKER

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INCOMING TELEGRAM

PAGE 01 OUAGAD 00662 311154Z 7606 015526 AID5219
ACTION AID-00

ACTION OFFICE AFRA-03
INFO AAAF-02 AFFW-04 AFDR-06 AFCA-03 PPCE-01 PPPB-02 STAG-02
SAST-01 AFDA-01 AGRI-01 STFA-01 RELO-01 MAST-01
/029 A1 1131

INFO OCT-00 AF-00 /035 W
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FM AMEMBASSY OUAGADOUGOU
TO AMEMBASSY YAOUNDE IMMEDIATE
INFO SECSTATE WASHDC 8918

UNCLAS OUAGADOUGOU 00662

AIDAC

FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: TRAVEL OF C. MCKENNA AND J. ALBERT TO CAMEROON FOR SAFGRAD EVALUATION.

1. CONSTANCE MCKENNA, TRAINING/EXTENSION SPECIALIST, AND JOCELYNE ALBERT, SOCIAL SCIENTIST S&T AGRICULTURE, ON THE SAFGRAD PROJECT EVALUATION TEAM ARE PLANNING TRAVEL TO CAMEROON TO MEET WITH USAID/YAOUNDE SAFGRAD PROJECT MANAGER/BACKSTOP OFFICER AND TO VISIT THE IRA IN MAROUA TO ASSESS ACPO CAMEROON ACTIVITIES. MCKENNA'S ETA YAOUNDE IS FRIDAY FEBRUARY 3 AIR CAMEROON NO. 758 AT 2235. ALBERT'S ETA IS FEBRUARY 4. USAID/W WILL ADVISE USAID/YAOUNDE OF ALBERT'S EXACT ETA AND FLIGHT NUMBER.

2. USAID/UV REQUESTS THAT USAID/YAOUNDE MAKE HOTEL RESERVATIONS FOR MCKENNA AND ALBERT AND MEET AND ASSIST AT AIRPORT. MCKENNA AND ALBERT REQUEST APPOINTMENT WITH SAFGRAD PROJECT MANAGER ON FEBRUARY 6 AT USAID/YAOUNDE. PLEASE ADVISE. USAID/UV APOLOGIZES FOR THIS LATE NOTICE, BUT THE LOGISTICS OF ORGANIZING TRAVEL OF TEAM MEMBERS TO KEY SAFGRAD PARTICIPATING COUNTRIES IS DIFFICULT AND YOUR COOPERATION IN THIS EFFORT IS VERY MUCH APPRECIATED. WALKER

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INCOMING TELEGRAM

PAGE 01 NAIROB 02922 261337Z 8916 016811 AID1383
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ACTION OFFICE AFEA-03
INFO AFDP-06 AFDR-06 PPCE-01 PPPB-02 PPDC-01 AFDA-01 RELO-01
MAST-01 DO-01 AFPM-01 /024 A2 928

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FM AMEMBASSY NAIROBI
TO SECSTATE WASHDC 4313

UNCLAS NAIROBI 02922

AIDAC

E.O. 12356: N/A
SUBJECT: REDSO/ESA - SAFGRAD EVALUATION

1. REDSO/ESA IS IN RECEIPT OF CABLES FROM AF EX REQUESTING COUNTRY CLEARANCE FOR ROBERT GRAY (OICD), ELVIN FROLIP (OICD) AND CONSTANCE MCKENNA (ES) IN CONNECTION WITH SUBJECT EVALUATION.

2. REDSO/ESA ADVISES THAT DR. BIRHANI, SAFGRAD/ICRISAT, WILL BE OUT OF KENYA FROM FEBRUARY 3-19. HE IS AVAILABLE BEGINNING FEBRUARY 20 THROUGH THE FOLLOWING WEEK.

3. REQUEST ADVISE WHETHER TEAM CAN POSTPONE VISIT UNTIL O/A FEBRUARY 20, AND IF THERE ARE OTHER PERSONS THAT SHOULD BE ADVISED OF THIS VISIT. WOULD ALSO APPRECIATE SOW FOR EVALUATION SAFGRAD ACTIVITIES IN ESA BEFORE CONCURRING IN VISIT. THOMAS

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INCOMING TELEGRAM

Gray

PAGE 01 OUAGAD 00564 01 OF 06 261344Z 8151 013681 AID1198
ACTION AID-00

ACTION OFFICE AFRA-01
INFO AAAF-02 AFEW-04 AFDR-06 PPEC-01 PPPB-02 AFDA-01 AGRI-01
RELO-01 MASI-01 /022 A2 1226

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TO SECSTATE WASHDC PRIORITY 8366

UNCLAS SECTION 01 OF 06 OUAGADOUGOU 00564

AIDAC

FOR R.GRAY, AFR/RA

E.O. 12356:N/A
SUBJECT: SAFGRAD PROJECT, 698-0393, EVALUATION

REF. OUAGA 0434

1. THE FOLLOWING ARE THE MORE DETAILED SOWS FOR EVALUATION TEAM MEMBERS:

- A. TEAM LEADER - MITCHELL

THE SAFGRAD PROJECT IS A REGIONAL AGRICULTURAL RESEARCH PROJECT COMPRISED OF SEVERAL ACTIVITIES BEING IMPLEMENTED IN SEVERAL LOCATIONS. THE EVALUATION MUST ADDRESS ADMINISTRATIVE ARRANGEMENTS IN TERMS OF THE COORDINATION FUNCTION AS PERFORMED BY OAU/STRC AND THE TECHNICAL/ SCIENTIFIC ASPECTS AS CARRIED OUT BY THE VARIOUS RESEARCH ENTITIES. THE FINAL EVALUATION REPORT MUST BE A COMPREHENSIVE AND COHESIVE DOCUMENT WHICH WILL ASSIST USAID, OAU/STRC AND OTHER PROJECT COOPERATORS IN ADDRESSING POLICY ISSUES AND IN DESIGNING MORE APPROPRIATE INTERVENTIONS FOR A SAFGRAD PHASE II. THE TEAM LEADER'S PRIMARY FUNCTION WILL BE TO INSURE THAT THE EVALUATION IS COMPLETED IN A TIMELY MANNER WHILE PROVIDING EFFECTIVE MANAGEMENT AND PROGRAM GUIDANCE TO ALL PROJECT ENTITIES. TO THIS END, THE TEAM LEADER WILL CARRY OUT THE FOLLOWING SCOPE OF WORK:

- PROVIDE GUIDANCE AND DIRECTION TO EVALUATION TEAM MEMBERS IN ACCORDANCE WITH AID EVALUATION METHODOLOGY AND PROCEDURES AS OUTLINED IN AID HANDBOOK 3, CHAPTER 12.

- ASSIST THE MANAGEMENT, ORGANIZATION SPECIALIST IN AN EVALUATION OF THE OVERALL SAFGRAD CONCEPT AND THE COORDINATION FUNCTION AS IMPLEMENTED BY OAU/STRC.
- RELATED TO 2 ABOVE, DETERMINE THE DEGREE THAT PARTICIPATING SAFGRAD COUNTRIES' NATIONAL RESEARCH PROGRAMS ARE INTEGRATED WITH THE REGIONAL RESEARCH SUPPORTED BY THE PROJECT.

- MANAGE THE COMPILATION OF THE EVALUATION FINAL REPORT. HE/SHE WILL BE THE PRINCIPAL EDITOR AND WILL INSURE THE EVALUATION REPORT IS A COHESIVE DOCUMENT AND IS SUBMITTED IN A TIMELY MANNER.

- RELATED TO 4 ABOVE, PROVIDE FOR ALL LOGISTICAL SUPPORT TO THE EVALUATION TEAM. THIS WILL INCLUDE HIRING SECRETARIES AND ADMINISTRATIVE ASSISTANTS, RENTING VEHICLES, ETC. USAID/HV WILL PROVIDE SUPPORT IN THIS EFFORT.

B. FARMING SYSTEMS SPECIALIST - SIMMONS.

OUAGAD 00564 01 OF 06 261344Z 8151 013681 AID1198

THE SAFGRAD PROJECT HAS SUPPORTED THE FARMING SYSTEMS UNIT (FSU) WITH THE PURPOSE OF OBTAINING MORE AGROECOLOGICAL SPECIFIC INFORMATION REGARDING SMALL FARM CONDITIONS IN PARTICIPATING SAFGRAD COUNTRIES. INTRODUCING FARMING SYSTEMS RESEARCH (FSR) PROVIDES A VITAL FEEDBACK LINK IN TERMS OF CONSTRAINT IDENTIFICATION AND FARM LEVEL RESOURCE ALLOCATION DECISION FROM THE SMALL FARMER TO THE RESEARCH SCIENTISTS CONDUCTING BASIC VARIETAL AND AGRONOMIC RESEARCH. THIS PROCESS IS CONSIDERED VITAL TO A MORE ACCURATE APPRAISAL OF RESEARCH NEEDS AND MORE EFFECTIVE DISSEMINATION OF PROMISING TECHNOLOGIES. THE FARMING SYSTEMS RESEARCH SPECIALIST ON THE SAFGRAD EVALUATION TEAM WILL CARRY OUT THE FOLLOWING SCOPE OF WORK TO ASSESS THE FSU COMPONENT OF THE SAFGRAD PROJECT:

1. ASSESS THE FARMING SYSTEMS RESEARCH (FSR) METHODOLOGY WHICH HAS BEEN DEVELOPED BY THE PURDUE UNIVERSITY TECHNICAL ASSISTANCE TEAM IN TERMS OF:

- A. ITS APPROPRIATENESS RELATIVE TO OTHER MODELS DEVELOPED FOR USE IN THE SAHEL AND OTHER PARTS OF AFRICA I.E. THE ICRISAT ECONOMICS PROGRAM, ORSTROM, AND IRAT; INCLUDED SHOULD BE A COST-EFFECTIVENESS ANALYSIS OF THE SOCIO-ECONOMIC DATA COLLECTION ACTIVITIES IN RELATION TO OTHER METHODOLOGIES.

- B. ITS CONTRIBUTION TO INCREASED KNOWLEDGE OF SMALL FARM CONDITIONS, PRODUCTION CONSTRAINTS, AND FARM MANAGEMENT STRATEGIES; AND

- C. ITS POTENTIAL AS A MEANS OF FACILITATING THE TRANSFER OF INFORMATION CONCERNING SMALL FARM CONDITIONS AND FARMER ATTITUDES TOWARD IMPROVED TECHNOLOGIES TO APPROPRIATE RESEARCH INSTITUTIONS.

Cable given to USDA and to Evaluation Team members. No other action necessary.
RGray
2-06-84

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ACTION OFFICE AFRA-01
INFO AAAF-02 AFFW-04 AFDR-06 PPCE-01 PPPB-02 AFDA-01 AGRI-01
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TO SECSTATE WASHDC PRIORITY 8867

UNCLAS SECTION 02 OF 06 OUAGADOUGOU 00564

AIDAC

FOR R.GRAY, AFR/RA

E.O. 12356:N/A
SUBJECT: SAFGRAD PROJECT, 698-0393, EVALUATION

2. DETERMINE THE DEGREE OF INTEGRATION AND COLLABORATION THE FSU ACTIVITIES HAVE WITH OTHER SAFGRAD RESEARCH COOPERATORS (IITA, ICRUSAT) IN TERMS OF SELECTING TECHNOLOGIES TO BE TESTED/EVALUATED AND FOR FORMULATING THE SAFGRAD RESEARCH AGENDA.

3. RECOMMEND APPROPRIATE FSR INTERVENTIONS FOR THE REMAINDER OF THE SAFGRAD PROJECT AND FOR ANY PHASE II EFFORTS. TO THIS END, PROVIDE AN ASSESSMENT OF THE PROPOSED IFAD SUPPORT TO THE DEVELOPMENT TO ADDITIONAL FSUS IN OTHER SAFGRAD COUNTRIES.

C. SENIOR RESEARCH SCIENTIST - FROLIK

THE SAFGRAD PROJECT PROVIDES FOR THE SEMI-ARID ZONES OF AFRICA AN INSTITUTIONAL STRUCTURE WHICH PROMOTES THE COORDINATION OF CEREALS AND GRAIN LEGUME RESEARCH AND TRAINING OF PARTICIPATING COUNTRIES' RESEARCH SCIENTISTS. THE ACTUAL SAFGRAD RESEARCH AND TRAINING IS CONDUCTED BY VARIOUS RESEARCH ENTITIES WHICH CAN BE GROUPED INTO THREE CATEGORIES: PARTICIPATING AFRICAN STATES' NATIONAL RESEARCH INSTITUTES, INTERNATIONAL AGRICULTURAL RESEARCH CENTERS (IARCS), AND OTHER AGRICULTURAL RESEARCH ORGANIZATIONS WITH PROGRAMS IN THE SEMI-ARID ZONES. THE SAFGRAD ORGANIZATION IS COMPRISED OF THREE COORDINATING BODIES; THE CONSULTATIVE COMMITTEE (CC) WHICH PROVIDES POLICY GUIDANCE AND PROGRAM MONITORING, THE TECHNICAL ADVISORY COMMITTEE (TAC) WHICH RECOMMENDS THE RESEARCH AND TRAINING AGENDA, AND THE COORDINATION OFFICE WHICH IMPLEMENTS THE SAFGRAD RESEARCH PROGRAM AS DIRECTED BY THE CC AND TAC. THE ADMINISTRATIVE ARRANGEMENTS AND INTER-INSTITUTIONAL AGREEMENTS EMPLOYED IN THE SAFGRAD ORGANIZATION ARE PROVIDED BY THE ORGANIZATION OF AFRICAN UNITY SCIENTIFIC, TECHNICAL AND RESEARCH COMMISSION (OAU/STRC). MEMBERSHIP IN THE CC AND TAC IS MADE UP OF REPRESENTATIVES OF ALL PARTICIPATING ENTITIES, OAU/STRC, MEMBER STATES, IARCS AND THE DONOR COMMUNITY. SINCE THE INCEPTION OF THE PROJECT, IARCS HAVE EXPANDED THEIR PROGRAMS IN AFRICA, NATIONAL RESEARCH PROGRAMS HAVE GROWN AND OTHER REGIONAL RESEARCH INSTITUTES HAVE BEEN CREATED. AS A RESULT, THE SCOPE OF THE SAFGRAD NETWORK WILL NEED TO BE REDEFINED RELATIVE TO THE INSTITUTIONAL DEVELOPMENT OF THESE OTHER RESEARCH ENTITIES. TO THIS END, THE SENIOR RESEARCH SCIENTIST PARTICIPATING ON THE EVALUATION TEAM WILL AID IN CLARIFYING THE ROLE OF THE SAFGRAD ORGANIZATION AND WILL CARRY OUT THE FOLLOWING SCOPE OF WORK:

- IN COLLABORATION WITH THE ORGANIZATION/MANAGEMENT SPECIALIST AND TEAM LEADER, ASSESS THE CONTINUED APPROPRIATENESS OF THE SAFGRAD ORGANIZATION AS AN INSTITUTIONAL COORDINATING MECHANISM FOR RESEARCH, TRAINING AND TECHNOLOGY TRANSFER FOR CEREALS AND GRAIN LEGUMES IN THE SEMI-ARID ZONE OF AFRICA.

- BASED ON 1 ABOVE; IF THE COORDINATION FUNCTION IS REQUIRED, RECOMMEND A MORE EFFICIENT OR EFFECTIVE ALTERNATIVE.

- ASSESS THE DEGREE OF INTEGRATION OF THE RESEARCH SUPPORTED BY SAFGRAD AT THE NATIONAL, REGIONAL AND INTERNATIONAL LEVELS AND MAKE RECOMMENDATIONS AS TO HOW THIS COULD BE ENHANCED AND FACILITATED.

- RECOMMEND HOW IARCS CAN PLAY A LARGER ROLE NOT IN ONLY CARRYING OUT RESEARCH, BUT ALSO IN COORDINATING RESEARCH WITH NATIONAL AND REGIONAL PROGRAMS.

- RELATED TO 4 ABOVE, DELINEATE THE MOST APPROPRIATE TYPE OF RELATIONSHIP BETWEEN THE IARCS AND USAID I.E. GRANT OR CONTRACTUAL; IN TERMS OF ACCOMMODATING THE RESEARCH REQUIRED BY THE PROJECT.

- ASSESS THE POTENTIAL FOR OTHER REGIONAL RESEARCH INSTITUTIONS AND PROGRAMS SUCH AS INTSORMIL AND INSAH TO ASSUME MORE RESPONSIBILITIES FOR SAFGRAD SUPPORTED ACTIVITIES.

- IN COLLABORATION WITH THE MANAGEMENT/ORGANIZATION SPECIALIST, REVIEW THE FUNCTIONS OF THE CC AND TAC IN TERMS OF DEVELOPING AND IMPLEMENTING THE SAFGRAD RESEARCH AGENDA, AND RECOMMEND HOW THESE COMMITTEES CAN BE MORE EFFECTIVE.

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UNCLAS SECTION 03 OF 06 OUAGADOUGOU 00564

AIDAC

FOR R.GRAY, AFR/RA

E.O. 12356:N/A
SUBJECT: SAFGRAD PROJECT, 698-0393, EVALUATION

D. TRAINING EXTENSION SPECIALIST - MCKENNA

THE SAFGRAD PROJECT SUPPORTS TRAINING AT SEVERAL LEVELS: FARMER, NON-DEGREE AND DEGREE TRAINING. EACH CONTRACTOR UNDER SAFGRAD (IITA, ICRISAT, PURDUE) HAS TRAINING PROGRAMS WHICH ATTEMPT TO DEVELOP THE HOST COUNTRIES' CAPACITIES FOR IMPLEMENTING RESEARCH PROGRAMS. ADDITIONALLY, THE PROJECT HAS SENT 26 CANDIDATES FOR LONG TERM TRAINING IN VARIOUS AGRICULTURAL SCIENCES. OVERALL, THE SAFGRAD PROJECT HAS DEVOTED MUCH EFFORT AND RESOURCES TO TRAINING PROGRAMS. THE TRAINING/EXTENSION SPECIALIST PARTICIPATING ON THE EVALUATION TEAM WILL CARRY OUT THE FOLLOWING SCOPE OF WORK TO ADDRESS ISSUES OF THE TRAINING ACTIVITIES:

- REVIEW THE SAFGRAD SUPPORTED LONG-TERM TRAINING IN TERMS OF:

- A. THE GEOGRAPHIC DISTRIBUTION OF PARTICIPANTS;
- B. ACADEMIC PERFORMANCE OF PARTICIPANTS;
- C. AREAS OF EMPHASIS, I.E. DISCIPLINES STUDIED;
- D. THE SELECTION PROCESS AND CRITERIA FOR SELECTION;
- AND MAKE RECOMMENDATIONS WHICH WILL IMPROVE THE
- LONG-TERM TRAINING PROGRAM

- REVIEW THE SHORT-TERM TRAINING PROGRAMS AS IMPLEMENTED BY THE INDIVIDUAL CONTRACT TEAMS IN TERMS OF THE RELEVANCE AND EFFECTIVENESS OF THE PROGRAMS IN DEVELOPING INTERMEDIATE LEVEL TECHNICIANS TO CARRY OUT THE VARIOUS RESEARCH PROGRAMS AND MAKE RECOMMENDATIONS FOR IMPROVING THE PROGRAMS

THE PRINCIPAL MECHANISM OF LINKING RESEARCH TO THE FARMER AND EXTENSION SERVICE UNDER THE SAFGRAD PROGRAM INVOLVES THE USE OF AN ACCELERATED CROP PRODUCTION OFFICER (ACPO). PRESENTLY THE SAFGRAD PROJECT HAS 5 ACPOS WORKING IN SENEGAL, UPPER VOLTA, MALI, CAMEROON AND TOGO. ACPOS ARE ASSIGNED TO NATIONAL RESEARCH PROGRAMS TO CARRY OUT A PROGRAM OF FIELD/ON-FARM TESTING AND DEMONSTRATION OF RESEARCH RESULTS. THE TRAINING/EXTENSION SPECIALIST PARTICIPATING ON THE EVALUATION TEAM WILL CARRY OUT THE FOLLOWING SCOPE OF WORK TO DETERMINE THE EFFECTIVENESS OF THE ACPO PROGRAM:

- REVIEW THE ACPO PROGRAM IN CAMEROON, SENEGAL, MALI AND UPPER VOLTA TO DETERMINE THE EFFECTIVENESS BY WHICH SAFGRAD REGIONALLY SUPPORTED RESEARCH IS BEING FURTHER TESTED AT THE FARM LEVEL. TO THIS END, ASSESS THE

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LINKAGES BETWEEN ACPOS AND SAFGRAD RESEARCH ENTITIES AND THE OAU/STRC COORDINATING OFFICE.

- BASED ON 1 ABOVE, ASSESS THE DEGREE OF EXTENSION SERVICE AND FARMER COLLABORATION IN IMPLEMENTING THE OFF-STATION RESEARCH TRIALS, I.E. TO WHAT DEGREE IS A FOR PERSPECTIVE INCORPORATED IN THEIR PROGRAMS.

- EVALUATE THE DEGREE OF INTEGRATION OF THE ACPO PROGRAMS WITH NATIONAL RESEARCH PROGRAMS (THIS WILL INCLUDE TO A CERTAIN DEGREE AN ASSESSMENT OF THE RELEVANCE OF SAFGRAD SUPPORT TO NATIONAL PROGRAMS) AND RECOMMEND ALTERNATIVE MECHANISMS FOR ACPO SUPPORT, I.E. IF ACPOS PROVIDE A VITAL LINK IN THE RESEARCH PROCESS, IS IT NOT IN THE INTEREST OF NATIONAL PROGRAMS TO ASSUME THEIR SUPPORT TO EXPAND THEIR CAPACITIES TO PERFORM THIS RESEARCH - EXTENSION-FARMER LIAISON FUNCTION?

E. ORGANIZATION/MANAGEMENT SPECIALIST - POIRIER

THE SEMI-ARID FOOD GRAINS RESEARCH AND DEVELOPMENT (SAFGRAD) ORGANIZATION PROVIDES FOR THE SEMI-ARID ZONES OF AFRICA AN INSTITUTIONAL STRUCTURE WHICH PROMOTES THE COORDINATION OF CEREALS AND GRAIN LEGUMES RESEARCH AND TRAINING OF PARTICIPATING COUNTRIES' RESEARCH SCIENTISTS. THE ACTUAL SAFGRAD RESEARCH AND TRAINING IS CONDUCTED BY NUMEROUS ENTITIES WHICH CAN BE GROUPED INTO THREE CATEGORIES: PARTICIPATING AFRICAN STATES' NATIONAL RESEARCH INSTITUTES, INTERNATIONAL AGRICULTURAL RESEARCH CENTERS (IARCS), AND OTHER AGRICULTURAL RESEARCH ORGANIZATIONS WITH PROGRAMS IN SEMI ARID ZONES. THE SAFGRAD ORGANIZATION IS COMPRISED OF THREE COORDINATING BODIES; THE CONSULTATIVE COMMITTEE (CC) WHICH PROVIDES POLICY GUIDANCE AND PROGRAM MONITORING, THE TECHNICAL

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UNCLAS SECTION 04 OF 06 OUAGADOUGOU 00564

AIDAC

FOR R.GRAY, AFR/RA

E.O. 12356:N/A
SUBJECT: SAFGRAD PROJECT, 698-0393, EVALUATION

ADVISORY COMMITTEE (TAC) WHICH RECOMMENDS THE RESEARCH AND TRAINING AGENDA, AND THE COORDINATION OFFICE WHICH IMPLEMENTS THE SAFGRAD RESEARCH PROGRAM AS DIRECTED BY THE CC AND TAC. THE ADMINISTRATIVE SYSTEMS AND INTER-INSTITUTIONAL AGREEMENTS EMPLOYED IN THE SAFGRAD ORGANIZATION ARE PROVIDED BY THE ORGANIZATION AFRICAN UNITY SCIENTIFIC, TECHNICAL AND RESEARCH COMMISSION (OAU/STRC). MEMBERSHIP ON THE CC AND TAC IS MADE UP OF REPRESENTATIVES OF ALL THE PARTICIPATING ENTITIES; OAU/STRC, MEMBER STATES, IARCS, AND THE DONOR COMMUNITY. THUS, THE SAFGRAD ORGANIZATION IS COMPLEX WITH A MYRIAD OF ACTIVITIES BEING IMPLEMENTED TO ACHIEVE DIFFERENT SUB-OBJECTIVES OF THE PROJECT. GIVEN THIS ORGANIZATIONAL COMPLEXITY THE ORGANIZATION/MANAGEMENT SPECIALIST WILL PROVIDE AN ANALYSIS OF THE COORDINATION FUNCTION AND CARRY OUT THE FOLLOWING SCOPE OF WORK:

- PROVIDE AN ANALYSIS OF THE SAFGRAD ORGANIZATION IN TERMS OF:

- A. THE ADMINISTRATIVE STRUCTURE AND MANAGEMENT
- SYSTEMS OF THE OAU/STRC COORDINATION OFFICES IN
- LAGOS, NIGERIA AND OUAGADOUGOU, UPPER VOLTA AND
- ITS CAPACITIES TO PERFORM THE RESEARCH COORDINATION
- FUNCTION REQUIRED BY THE PROJECT;

- B. RELATED TO A. ABOVE, THE RELATIONSHIP BETWEEN THE
- OAU/STRC COORDINATION OFFICE AND OTHER PROJECT
- COOPERATORS, INCLUDING USAID, IN TERMS OF EFFICIENCY
- AND EFFECTIVENESS IN COORDINATING RESEARCH AND
- PROJECT IMPLEMENTATION AND MANAGEMENT;

- C. THE OAU/STRC FINANCIAL ACCOUNTING SYSTEM.

- BASED ON 1.A.B. AND C., MAKE RECOMMENDATIONS FOR IMPROVEMENTS AS REQUIRED.

- IN COLLABORATION WITH THE SENIOR RESEARCH SCIENTIST AND TEAM LEADER, AND BASED ON 1.A.B. AND C. ABOVE, ASSESS THE CONTINUED APPROPRIATENESS OF THE SAFGRAD ORGANIZATION AS AN INSTITUTIONAL COORDINATING MECHANISM FOR RESEARCH, TRAINING AND TECHNOLOGY TRANSFER.

- IN COLLABORATION WITH THE SENIOR RESEARCH SCIENTIST, REVIEW THE FUNCTIONS OF THE CC AND TAC IN TERMS OF DEVELOPING AND IMPLEMENTING THE SAFGRAD RESEARCH AGENDA.

F. RESEARCH AGRONOMIST-TAYLOR



THE SAFGRAD PROJECT PURPOSE IS TO DEVELOP IMPROVED CEREAL VARIETIES (MILLET, SORGHUM AND MAIZE) AND GRAIN LEGUMES (COWPEA, GROUNDNUT) AND IMPROVED CULTURAL PRACTICES WHICH ADDRESS PRODUCTION CONSTRAINTS OF SMALL FARMER SEMI-ARID AGRICULTURE. THE DEVELOPMENT OF IMPROVED TECHNOLOGIES IS CRUCIAL TO ANY EFFORTS AT INCREASING AGRICULTURAL PRODUCTION AND SMALL FARMER PRODUCTIVITY. THE RESEARCH UNDERTAKEN BY THE PROJECT IS SUPPORTED AT THE REGIONAL AND NATIONAL LEVELS. THE REGIONAL RESEARCH IS CONDUCTED AT THE AMBOINSE RESEARCH STATION IN UPPER VOLTA, SAMARU STATION IN NIGERIA AND NAIROBI, KENYA. SAFGRAD REGIONAL RESEARCH IS SUPPORTED AT THE NATIONAL LEVEL THROUGH PROGRAMS OF FIELD/ON-FARM TRIALS AND OTHER TYPES OF OUTREACH EXTENSION PROGRAMS AIMED AT FURTHER TESTING, DEVELOPING AND EXTENDING IMPROVED TECHNOLOGIES. THE INTERNATIONAL INSTITUTE FOR TROPICAL AGRICULTURE (IITA) HAS PRIMARY RESPONSIBILITY FOR CONDUCTING RESEARCH ON MAIZE AND GRAIN LEGUMES AND THE INTERNATIONAL CROP RESEARCH INSTITUTE FOR THE SEMI-ARID TROPICS (ICRISAT) CONCENTRATES ON MILLET, SORGHUM AND PRODUCTION AGRONOMY RESEARCH. AS THE SAFGRAD PROJECT'S MAJOR EMPHASIS HAS BEEN TO SUPPORT BASIC VARIETAL AND AGRONOMIC RESEARCH, THE RESEARCH AGRONOMIST WILL ADDRESS THE TECHNICAL ISSUES OF THE RESEARCH CONDUCTED BY THE SAFGRAD PROJECT BY CARRYING OUT THE FOLLOWING SCOPE OF WORK:

- REVIEW THE RESEARCH ACTIVITIES IMPLEMENTED BY THE SAFGRAD SUPPORTED ENTITIES AND EVALUATE THE VARIETAL AND AGRONOMIC IMPROVEMENT PROGRAMS OF IITA AND ICRISAT IN TERMS OF THEIR SCIENTIFIC QUALITY AND APPROPRIATENESS GIVEN THE PRODUCTION CONSTRAINTS (LOW RAINFALL, LOW AND DETERIORATING SOIL FERTILITY) OF SEMI-ARID CONDITIONS.

- BASED 1 ABOVE, RECOMMEND PRIORITY AREAS AND MOST EFFECTIVE RESOURCE ALLOCATIONS IN TERMS OF RESEARCH

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UNCLAS SECTION 05 OF 06 OUAGADOUGOU 00564

AIDAC

FOR R.GRAY, AFR/RA

E.O. 12356:N/A
SUBJECT: SAFGRAD PROJECT, 698-0393, EVALUATION

(VARIETAL VS AGRONOMIC; ON-STATION VS OFF-STATION, EXPANDED FSR, MORE EMPHASIS ON LOCAL VARIETIES VS DEVELOPMENT ON NEW VARIETIES) WHICH SHOULD BE ADDRESSED DURING THE REMAINING LIFE OF THE CURRENT PROJECT AND A PHASE II EFFORT.

- ASSESS THE SAFGRAD CONCEPT OF REGIONALLY SUPPORTED RESEARCH FROM A TECHNICAL POINT OF VIEW IN TERMS OF EFFICIENCY AND EFFECTIVENESS IN COORDINATING RESEARCH TO DETERMINE ITS RELEVANCE TO NATIONAL PROGRAMS AND AGROECOLOGICAL SPECIFIC NEEDS AND MAKE RECOMMENDATIONS FOR A MORE EFFECTIVE STRUCTURE AND LINKAGES.

- REVIEW THE VARIOUS SCIENTIFIC CONFERENCES SUPPORTED BY SAFGRAD TO DETERMINE THEIR EFFECTIVENESS AT INFORMATION DESSIMINATION AMONG RESEARCH SCIENTISTS AND TO WHAT EXTENT THEY PROMOTE INCREASED COLLABORATION IN ADDRESSING RESEARCH NEEDS, AND MAKE RECOMMENDATION FOR FUTURE SUPPORT OF THESE ACTIVITIES.

G. AGRICULTURAL ECONOMIST-BEKURE

SEVENTY TO EIGHTY PER CENT OF THE POPULATION OF THE SAFGRAD COUNTRIES ARE ENGAGED IN RAINFED AGRICULTURE. THE MAJORITY OF THESE FARMERS DEPEND ALMOST ENTIRELY ON CEREAL PRODUCTION FOR THEIR LIVELIHOOD. MILLET, SORGHUM, AND MAIZE PRODUCTION ACCOUNT FOR APPROXIMATELY EIGHTY PER CENT OF ALL CEREALS PRODUCED IN THE SEMI-ARID REGIONS OF THE PARTICIPATING SAFGRAD COUNTRIES. IN TERMS OF ECONOMIC RETURNS, RESEARCH INVESTMENTS HAVE HIGH COST-BENEFIT POTENTIAL. THE SAFGRAD PROJECT EVALUATION MUST ESTIMATE AND DOCUMENT THE ACTUAL AND POTENTIAL ECONOMIC RETURNS TO USAID'S INVESTMENT IN SAFGRAD, AND TO THIS END THE AGRICULTURAL ECONOMIST PARTICIPATING ON THE SAFGRAD EVALUATION WILL CARRY OUT THE FOLLOWING SCOPE OF WORK:

- REVIEW THE RESEARCH ACTIVITIES IMPLEMENTED BY THE SAFGRAD SUPPORTED ENTITIES AND IDENTIFY TECHNOLOGIES (VARIETIES AND CULTURAL PRACTICES) BEING PROMOTED BY THE PROJECT WHICH HAVE POTENTIAL FOR WIDESPREAD ADOPTION AMONGST FARMERS OF THE PARTICIPATING COUNTRIES.

- BASED ON ONE ABOVE, ESTIMATE THE ECONOMIC IMPACT, BOTH DIRECT AND INDIRECT OF THE IMPROVED TECHNOLOGIES ON SEMI-ARID SMALL FARM AGRICULTURAL PRODUCTION, AND DETERMINE THE MOST COST-EFFECTIVE RESOURCE ALLOCATION AMONGST DIFFERENT RESEARCH ACTIVITIES (BREEDING, AGRONOMY,

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ENTOMOLOGY, FARMING SYSTEMS RESEARCH) SUPPORTED BY THE PROJECT.

- EVALUATE THE COST-EFFECTIVENESS OF SAFGRAD AS A RESEARCH COORDINATING MECHANISM RELATIVE TO THE ESTABLISHMENT OF OTHER REGIONAL RESEARCH INSTITUTIONS SUCH AS INSTITUTE DU SAHEL AND THE CADCC EFFORT AND TO THE IMPROVEMENTS IN NATIONAL RESEARCH PROGRAMS SINCE THE INCEPTION OF THE SAFGRAD PROJECT.

- GIVEN THAT PRICES AND OTHER ECONOMIC POLICY RELATIVES AFFECT THE RATE OF ADOPTION AND APPROPRIATENESS OF NEW TECHNOLOGIES, IDENTIFY WAYS BY WHICH OTHER INTERNATIONAL RESEARCH ORGANIZATIONS SUCH AS THE INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE CAN CONTRIBUTE TO THE DEVELOPMENT OF THE SAFGRAD RESEARCH AGENDA AND IMPROVE ITS EFFECTIVENESS AS A RESEARCH COORDINATING BODY.

- BASED ON 1 THROUGH 4 ABOVE, MAKE RECOMMENDATIONS WHICH SHOULD RECEIVE EMPHASIS AND BE CONSIDERED IN ANY PHASE II SAFGRAD EFFORTS.

ADDITIONS AND POSSIBLE DELETIONS MAY BE MADE TO THE SOWS AS THE NEED ARISES. THESE SOWS SHOULD GIVE EVALUATION TEAM MEMBERS MORE SPECIFIC GUIDANCE AS TO THEIR INDIVIDUAL ASSIGNMENTS. IT WAS DECIDED THAT DR. S. BEKURE COULD SERVE AS AGRICULTURAL ECONOMIST.

2. THE SCHEDULING OF THE EVALUATION REMAINS AS DISCUSSED WITH R. GRAY DURING HIS VISIT THE WEEK OF JANUARY 9, 1984. IF CHANGES HAVE COME ABOUT SINCE THEN, PLEASE ADVISE USAID/UPPER VOLTA. MITCHELL AND TAYLOR ARE SCHEDULED TO TRAVEL TO LAGOS, IITA AT IBADAN AND SAMARU ON/ABOUT FEBRUARY 1. SIMMONS WILL JOIN THEM AT IITA ON/ABOUT FEB. 3. PLEASE ADVISE USAID/UPPER VOLTA OF

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*Department of State*

INCOMING TELEGRAM

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AIDAC

FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: SAFGRAD PROJECT, 698-0393, EVALUATION

EXACT TIMING OF TRIPS SO THAT SIMMONS CAN MAKE THE NECESSARY TRAVEL PLANS.

3. IT IS NOT POSSIBLE FOR BLOOM TO OBTAIN CAMEROONIAN VISA IN OUAGADOUGOU OR ABIDJAN. THUS HIS TRAVEL TO CAMEROON IS UNLIKELY. USAID/UPPER VOLTA SUGGESTS THAT MCKENNA OBTAIN A CAMEROONIAN VISA AND FURTHER TRAVEL TO CAMEROON TO EVALUATE ACPO PROGRAM CAN BE DISCUSSED DURING FIRST WEEK OF EVALUATION. MCKENNA AND BLOOM TRAVEL TO SENEGAL ON/ABOUT FEBRUARY 15 AND MALI ON/ABOUT FEBRUARY 20 STILL IS PLANNED. FROLIK TRAVEL TO BAMAKO ALSO PLANNED.

4. POIRIER ETA OUAGADOUGOU FEBRUARY 10.

5. GRAY AND FROLIK TRAVEL TO NAIROBI TO EVALUATE ICRISAT REGIONAL MILLET AND SORGHUM PROGRAM PLANNED FOR ON/ABOUT FEBRUARY 14, 1984. BEKURE TO JOIN THEM IN NAIROBI.

6. LOGISTIC SUPPORT FOR EVALUATION TEAM IS TENTATIVELY ESTABLISHED. THE TEAM WILL STAY A THE HOTEL SILMANDE. A LARGE SUITE HAS ALSO BEEN RESERVED AT SILMANDE TO SERVE AS EVALUATION TEAM HEADQUARTERS. TWO CARS WILL BE RENTED. AN ADMINISTRATIVE ASSISTANT AND A SECRETARY HAVE BEEN IDENTIFIED. BE ADVISED THAT THE TEAM LEADER WILL BE RESPONSIBLE FOR HANDLING THE PAYMENT OF THIS SUPPORT. USAID/UPPER VOLTA HAS NOTIFIED OUA/STRC, IITA, ICRISAT AND PURDUE REPRESENTATIVES TO BE AVAILABLE FOR THE NECESSARY MEETINGS AND TO MAKE AVAILABLE DOCUMENTS FOR THE TEAMS REVIEW.

7. PLEASE ADVISE EXACT ETAS OR ANY CHANGES IN SCHEDULE.
WALKER

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UNCLAS SECTION 01 OF 02 OUAGADOUGOU 00549

AIDAC

AID/W FOR AFR/PD

E.O. 12356: N/A
SUBJECT: SIMMONS PARTICIPATION ON SAFGRAD PROJECT EVALUATION.

REF: BAMAKO 0243

1) USAID/UV IS PLEASED THAT SIMMONS WILL BE ABLE TO PARTICIPATE ON SAFGRAD EVALUATION. IF SCHEDULE PERMITS, USAID/UV WOULD REQUEST SIMMONS EXTEND PARTICIPATION UP TO 3 WEEKS I.E. FEBRUARY 2-24, 1984

2) THE TEAM WILL CONSIST OF THE FOLLOWING INDIVIDUALS: SAFGRAD EVALUATION TEAM

DON MITCHELL - TEAM LEADER
CONSTANCE MCKENNA - TRAINING/EXTENSION SPECIALIST
HOWARD TAYLOR - RESEARCH AGRONOMIST
ELVIN FROLIK - SENIOR RESEARCH SCIENTIST
G. POIRER - ORGANIZATION/MANAGEMENT SPECIALIST
SOLOMON BEKURE - AFRICAN SCIENTIST, AGRICULTURAL ECONOMIST
EMMY SIMMONS - AGRICULTURAL ECONOMIST/FARMING SYSTEMS RESEARCH SPECIALIST.

3) SIMMONS' SOW IS AS FOLLOWS: FARMING SYSTEMS RESEARCH SPECIALIST:

THE SAFGRAD PROJECT HAS SUPPORTED THE FARMING SYSTEMS UNIT (FSU) WITH THE PURPOSE OF OBTAINING MORE AGRO-ECOLOGICAL SPECIFIC INFORMATION REGARDING SMALL FARM CONDITIONS IN PARTICIPATING SAFGRAD COUNTRIES. INTRODUCING FARMING SYSTEMS RESEARCH (FSR) PROVIDES A VITAL FEEDBACK LINK IN TERMS OF CONSTRAINT IDENTIFICATION AND FARM LEVEL RESOURCE ALLOCATION DECISIONS FROM THE SMALL FARMER TO THE RESEARCH SYSTEM. CONSEQUENTLY, BIO-PHYSICAL AND AGRONOMIC RESEARCH [illegible] THIS PROCESS IS CONSIDERED VITAL TO A MORE ACCURATE APPRAISAL OF RESEARCH NEEDS AND MORE EFFECTIVE DISSEMINATION OF PROMISING TECHNOLOGIES. THE FARMING SYSTEMS RESEARCH SPECIALIST ON THE SAFGRAD EVALUATION TEAM WILL CARRY OUT THE FOLLOWING SCOPE OF WORK TO ASSESS THE FSU COMPONENT OF THE SAFGRAD PROJECT:

1. ASSESS THE FARMING SYSTEMS RESEARCH (FSR) METHODOLOGY WHICH HAS BEEN DEVELOPED BY THE PURDUE UNIVERSITY TECHNICAL ASSISTANCE TEAM IN TERMS OF:

A. ITS APPROPRIATENESS RELATIVE TO OTHER MODELS DEVELOPED FOR USE IN THE SAHEL AND OTHER PARTS OF AFRICA (I.E. THE FORTRAT ECONOMIC PROGRAM, [illegible]) AND INCLUDES SHOULD BE A COST-EFFECTIVENESS ANALYSIS OF THE SOCIO-ECONOMIC DATA COLLECTION ACTIVITIES IN RELATION TO OTHER METHODOLOGIES.

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B. ITS CONTRIBUTION TO INCREASED KNOWLEDGE OF SMALL FARM CONDITIONS, PRODUCTION CONSTRAINTS AND FARM MANAGEMENT STRATEGIES; AND

C. ITS POTENTIAL AS A MEANS OF FACILITATING THE TRANSFER OF INFORMATION CONCERNING SMALL FARM CONDITIONS AND FARMER ATTITUDES TOWARD IMPROVED TECHNOLOGIES TO APPROPRIATE RESEARCH INSTITUTIONS

2. DETERMINE THE DEGREE OF INTEGRATION AND COLLABORATION THE FSU ACTIVITIES HAVE WITH OTHER SAFGRAD RESEARCH COOPERATORS (WITA, IORISAT) IN TERMS OF SELECTING TECHNOLOGIES TO BE TESTED/EVALUATED AND FOR FORMULATING THE SAFGRAD RESEARCH AGENDA

3. RECOMMEND APPROPRIATE FSR INTERVENTIONS FOR THE REMAINDER OF THE SAFGRAD PROJECT AND FOR ANY PHASE II EFFORTS. TO THIS END, PROVIDE AN ASSESSMENT OF THE PROJECT'S SUPPORT TO THE DEVELOPMENT OF ADDITIONAL FSUS IN OTHER SAFGRAD COUNTRIES.

4) ADDITIONALLY, USAID/UV PROVIDES FOLLOWING SOW FOR AGRICULTURAL ECONOMIST PARTICIPATING ON EVALUATION TEAM. USAID/UV WOULD APPRECIATE SIMMONS' COMMENTS AND SUGGESTIONS.

SOW: AGRICULTURAL ECONOMIST:

SEVENTY TO EIGHTY PER CENT OF THE POPULATION OF THE SAFGRAD COUNTRIES ARE ENGAGED IN RAINFED AGRICULTURE. THE MAJORITY OF THESE FARMERS DEPEND ALMOST ENTIRELY ON CEREAL PRODUCTION FOR THEIR LIVELIHOOD. MILLET, SORGHUM, AND MAIZE PRODUCTION ACCOUNT FOR APPROXIMATELY EIGHTY PER CENT OF ALL CEREALS PRODUCED IN THE SEMI-ARID REGIONS

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UNCLAS SECTION 02 OF 02 OUAGADOUGOU 00549

AIDAC

AID/W FOR AFR/PA

E.O. 12356: N/A
SUBJECT: SIMMONS PARTICIPATION ON SAFGRAD PROJECT

OF THE PARTICIPATING SAFGRAD COUNTRIES. IN TERMS OF ECONOMIC RETURNS, RESEARCH INVESTMENTS HAVE HIGH COST-BENEFIT POTENTIAL. THE SAFGRAD PROJECT EVALUATION MUST ESTIMATE AND DOCUMENT THE ACTUAL AND POTENTIAL ECONOMIC RETURNS TO USAID'S INVESTMENT IN SAFGRAD, AND TO THIS END THE AGRICULTURAL ECONOMIST PARTICIPATING ON THE SAFGRAD EVALUATION WILL CARRY OUT THE FOLLOWING SCOPE OF WORK:

1. REVIEW THE RESEARCH ACTIVITIES IMPLEMENTED BY THE SAFGRAD SUPPORTED ENTITIES AND IDENTIFY TECHNOLOGIES (VARIETIES AND CULTURAL PRACTICES) BEING PROMOTED BY THE PROJECT WHICH HAVE POTENTIAL FOR WIDESPREAD ADOPTION AMONGST FARMERS OF THE PARTICIPATING COUNTRIES.

2. BASED ON ONE ABOVE, ESTIMATE THE ECONOMIC IMPACT, BOTH DIRECT AND INDIRECT OF THE IMPROVED TECHNOLOGIES ON SEMI-ARID SMALL FARM AGRICULTURAL PRODUCTION, AND DETERMINE THE MOST COST-EFFECTIVE RESOURCE ALLOCATION AMONGST DIFFERENT RESEARCH ACTIVITIES (BREEDING, AGRONOMY, ENTOMOLOGY, FARMING SYSTEMS RESEARCH) SUPPORTED BY THE PROJECT.

3. EVALUATE THE COST-EFFECTIVENESS OF SAFGRAD AS A RESEARCH COORDINATING MECHANISM RELATIVE TO THE ESTABLISHMENT OF OTHER REGIONAL RESEARCH (NOT TO ONLY SUCH AS INSTITUT DU SAHEL AND THE CILSS EFFORT) AND TO THE IMPROVEMENTS IN NATIONAL RESEARCH PROGRAMS SINCE THE INCEPTION OF THE SAFGRAD PROJECT

4. GIVEN THAT PRICES AND OTHER ECONOMIC POLICY RELATED (AFFECT THE RATE OF ADOPTION AND APPROPRIATENESS OF NEW TECHNOLOGIES), IDENTIFY WAYS BY WHICH OTHER INTERNATIONAL RESEARCH ORGANIZATIONS SUCH AS THE INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE CAN CONTRIBUTE TO THE DEVELOPMENT OF THE SAFGRAD RESEARCH AGENDA AND IMPROVE ITS EFFECTIVENESS AS A RESEARCH COORDINATING BODY.

5. BASED ON 1 THROUGH 4 ABOVE, MAKE RECOMMENDATIONS WHICH SHOULD RECEIVE EMPHASIS AND BE CONSIDERED IN ANY PHASE II SAFGRAD EFFORTS.

5) IT IS TENTATIVELY CONTEMPLATED THAT SIMMONS WILL TRAVEL TO FITA HEADQUARTERS IN MOROCCO, ROBERTA WHERE SHE WILL MEET UP WITH THE TEAM LEADER AND RESEARCH AGRONOMIST ON/ABOUT FEBRUARY 2. THEY WILL, THEN, PROCEED TO THE SAMARU RESEARCH STATION TO EVALUATE THE

PAGE 02 OUAGAD 00549 02 OF 02 251702Z 4587 014998 AID0441
TECHNICAL PROGRAM THERE. THEY WILL RETURN TO OUAGADOUGOU ON/ABOUT FEBRUARY 6.

6) USAID/OV WILL ADVISE OF ANY CHANGES IN EVALUATION SCHEDULE. WALKER

# Department of State

INCOMING TELEGRAM

PAGE 01 OUAGAD 00434 201240Z 2187 009268 AID5818
ACTION AID-00

ACTION OFFICE AGRI-01
INFO AAAF-02 AFRA-03 AFEW-04 AFDR-06 PPCE-01 PPPB-02 AFDA-01
RELO-01 MAST-01 /022 A1 1120

INFO OCT-00 AF-00 AGRE-01 /036 W
246123 201241Z /38

P 201231Z JAN 84
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC PRIORITY 8800

UNCLAS OUAGADOUGOU 00434

AIDAC

FOR OICD/USDA ATTN. KOFFSKY

E.O. 12356: N/A
SUBJECT: SAFGRAD (698-0393) EVALUATION TEAM

1. SAFGRAD EVALUATION TEAM OF MITCHELL (TEAM LEADER - 5 WEEKS), MCKENNA (EXTENSION/TRAINING SPECIALIST - 5 WEEKS), TAYLOR (RESEARCH AGRONOMIST - 5 WEEKS), FROLIK (SR. RESEARCH SCIENTIST - 3 WEEKS), AND POIRIER (ORGANIZATION/MANAGEMENT SPECIALIST - 3 WEEKS) ACCEPTED BY USAID.

2. REQUEST TEAM DELAY INITIATION TO BEGIN WORK IN OUAGADOUGOU ON JANUARY 30 TO CORRESPOND WITH AVAILABILITY OF SAFGRAD AND CONTRACT PERSONNEL. GRAY WILL PROVIDE DETAILS IN WASHINGTON ON JANUARY 16, 1984.

3. THERE IS SOME QUESTION IN USAID AS TO THE ABILITY OF THE TEAM TO PRODUCE A DRAFT FINAL REPORT (INCLUDING SUFFICIENT TIME FOR USAID AND OAU REVIEW) PRIOR TO DEPARTURE OF THE TEAM. THIS LINGERING DOUBT IS OCCASIONED BY THE COMPRESSION OF THE TASK INTO FIVE WEEKS AS COMPARED TO THE SEVEN WEEKS IN THE SCOPE OF WORK. THUS, AT LEAST THE TEAM LEADER SHOULD BE PREPARED TO EXTEND HIS STAY IN OUAGADOUGOU SHOULD THE NEED ARISE

4. USAID/UV APPRECIATES USDA RESPONSE TO THE EVALUATION NEEDS. WALKER



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INCOMING TELEGRAM

PAGE 01 OUAGAD 07386 241030Z 3514 099642 AID3304
ACTION AID-00

ACTION OFFICE AFRA-03
INFO AFFW-04 AFDR-06 PPCE-01 CMGT-02 CTR-02 AFDA-01 RELO-01
MAST-01 /021 A5 7

INFO OCT-00 AF-00 /035 W
----------353062 241031Z /38

R 241025Z DEC 83
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC 8486

UNCLAS OUAGADOUGOU 07386

AIDAC

FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: SAFGRAD (698-0393) EVALUATION

REF: BECKER/GRAY TELCON 12/21/83

1. USAID/UV IS PLEASED WITH THE PRELIMINARY RECRUITMENT OF EVALUATION TEAM MEMBERS AND HOPES THEY WILL BE AVAILABLE. AS REGARDS THE POSITION OF TEAM LEADER, USAID/UV'S PREFERENCE IS FOR E. HOGAN, BUT D. MITCHELL WOULD BE ACCEPTABLE SHOULD HOGAN NOT BE AVAILABLE.

2. OAU/STRC'S NOMINATION FOR THE AFRICAN SCIENTIST MEMBER OF THE TEAM IS DR. SOLOMON BEKURE. BIO DATA FOLLOWS:

| | |
|---|---|
| NAME | DR. SOLOMON BEKURE |
| NATIONALITY | ETHIOPIAN |
| EDUCATION | PH.D. AGRICULTURAL ECONOMICS, |
| - | OKLAHOMA STATE UNIVERSITY 1970 |
| CURRENT POSITION | INTERNATIONAL LIVESTOCK CENTER |
| - | FOR AFRICA |
| - | P.O. BOX 5689 |
| - | ADDIS ABABA, ETHIOPIA |

TEAM LEADER OF RESEARCH TEAM STUDYING RANGE LIVESTOCK PRODUCTION SYSTEMS IN KENYA.

| | |
|---|---|
| LANGUAGES | ENGLISH, AMHARIC, FRENCH (FAIR) |
| AGE | 43 |

3. USAID/UV WILL ISSUE PIL TO OAU/STRC TO FUND BEKURE'S SALARY, TRAVEL AND PER DIEM FOR HIS PARTICIPATION ON EVALUATION. OAU/STRC WILL MAKE ALL ARRANGEMENTS FOR HIS CONTRACTING AND TRAVEL TO OUAGADOUGOU. USAID/UV REQUESTS THAT HIS SOW BE DEFINED BY EVALUATION TEAM LEADER AS WITH OTHER MEMBERS OF TEAM.

4. PIO/T FOR EVALUATION IS FINAL AND WILL BE POUCHED ASAP. IN LIGHT OF THE FACT THAT THE EVALUATION WILL BE FOR A SHORTER PERIOD THAN ORIGINALLY ANTICIPATED, UDAID/UV WILL PREPARE A REFINED AND MORE SPECIFIC SOW AND CABLE IT AS SOON AS COMPLETED.

5. H. HUGHES IS PLANNING TO BE IN AID/W IN EARLY JANUARY. USAID/UV FEELS HE CAN CONTRIBUTE TO THE EVALUATION AS A RESOURCE PERSON AND SUGGESTS ARRANGEMENTS BE MADE TO ALLOW HIM TO PARTICIPATE DURING THE PRELIMINARY ORIENTATION OF EVALUATION TEAM MEMBERS OR IN ANY OTHER CAPACITY WHICH MAY BE USEFUL. WALKER

Gray

12-24

Copy passed to USDA and to SAFGRAD Cost Team Leader; no other action necessary
RGG
1-4-84

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ACTION COPY

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Department of State GRAY

INCOMING TELEGRAM

PAGE 01 OUAGAD 07258 190849Z 7992 093880 A107982
ACTION AID-00

ACTION OFFICE AFRA-03
INFO AFFW-04 AFDR-06 PPCE-01 PPPB-02 FM-02 CMGT-02 CTR-02
STAG-02 STPO-03 SAST-01 AGRI-01 RELO-01 /030 A2 1219

INFO OCT-00 AF-00 FBOE-06 A-02 /043 W
----------063343 190851Z /38

P 190839Z DEC 83
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC PRIORITY 8416

UNCLAS OUAGADOUGOU 07258

AIDAC

FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: SAFGRAD PROJECT (698-0' 3) EVALUATION.

REF.: OUAGADOUGOU 6783

1. PIO/T FOR SAFGRAD EVALUATION IS NEAR COMPLETION BY USAID/UV AND WILL BE POUCHED TO AID/W AS SOON AS FINAL CLEARANCES ARE OBTAINED. TO EXPEDITE THE RECRUITMENT AND PLACEMENT OF THE EVALUATION TEAM IN THE FIELD AT THE EARLIEST POSSIBLE DATE, USAID/UV REQUESTS PRELIMINARY CONTACTS AND NEGOTIATIONS WITH USDA BE INITIATED. IN FINALIZING THE PIO/T, THE FOLLOWING MODIFICATIONS IN THE SOW (REFTEL) WERE MADE:

A. AS PER SECTION II. A. EVALUATION TEAM: PLEASE NOTE THAT ALTHOUGH FRENCH SPEAKING AND READING COMPETENCY IS HIGHLY DESIRABLE, IT IS NOT A REQUIREMENT FOR TEAM MEMBERS. MOST PROJECT AFFILIATED RESEARCH AND OAU/STRC PERSONNEL ARE ENGLISH SPEAKERS, AND ALL PROJECT DOCUMENTATION IS IN ENGLISH. IT WOULD BE HELPFUL, HOWEVER, IF MOST TEAM MEMBERS HAD SOME FAMILIARITY WITH FRENCH AND AT LEAST ONE HAD ADEQUATE COMPETENCY TO HANDLE SITUATIONS WHERE THE USE OF FRENCH WOULD BE REQUIRED.

B. AS PER SECTION II. A. EVALUATION TEAM: GIVEN THE SCOPE AND COMPLEXITY OF THE PROJECT, IT MAY BE PREFERABLE TO INCLUDE AN ADDITIONAL MEMBER TO THE TEAM TO ACT AS CHIEF OF PARTY. HIS/HER MAIN FUNCTION WOULD BE TO DEVELOP THE EVALUATION METHODOLOGY, COORDINATE THE LOGISTICAL SUPPORT WHILE IN UPPER VOLTA, AND COORDINATE THE WRITING AND COMPILATION OF THE FINAL EVALUATION REPORT. HE/SHE SHOULD HAVE EXTENSIVE MANAGEMENT EXPERIENCE AND FAMILIARIZATION WITH THE AID EVALUATION PROCESS. ALSO, IN NEGOTIATING THE PASA AND EVALUATION METHODOLOGY IT MAY BE DETERMINED THAT A SENIOR RESEARCH SCIENTIST WOULD BE DESIRABLE TO ADD TO THE TEAM FOR THE PURPOSE OF EVALUATING THE EFFECTIVENESS OF THE SAFGRAD INSTITUTIONAL LINKAGES WITH NATIONAL RESEARCH AND EXTENSION PROGRAMS AND IARCS. HE/SHE SHOULD HAVE A FAMILIARIZATION AND EXPERIENCE WITH THE IARC NETWORK AND PROGRAMS IN AFRICA AND EXTENSIVE RESEARCH EXPERIENCE IN DEVELOPING COUNTRIES. HIS/HER SERVICES MAY OR MAY NOT BE REQUIRED FOR WHOLE DURATION.

C. AS PER SECTION III. EVALUATION METHODOLOGY: MUCH OF THE DEVELOPMENT OF THE EVALUATION METHODOLOGY, TEAM MEMBER JOB ASSIGNMENTS, AND THE NEED FOR ADDITIONAL TECHNICAL SPECIALISTS WILL PROBABLY TAKE PLACE DURING THE PASA NEGOTIATIONS. USAID/UV, HOWEVER, RESERVES THE RIGHT TO REVIEW THE EVALUATION METHODOLOGY AS FORMULATED BY THE TEAM LEADER, BUT IT IS HOPED THAT THE METHODOLOGY CAN BE FINALIZED AND CABLED TO USAID/UV BEFORE THE COMPLETION OF

OUAGAD 07258 190849Z 7992 093880 A107982

THE FIRST SCHEDULED WEEK OF EVALUATION. IT IS ESTIMATED THAT THE USAID/UV REVIEW OF THE METHODOLOGY WILL BE COMPLETED IN ONE OR TWO DAYS INSTEAD OF ONE OR TWO WEEKS AS STATED IN SECTION III. OF SOW, AND METHODOLOGY COULD BE DISCUSSED WHEN TEAM ARRIVES IN UPPER VOLTA. USAID/UV FEELS THIS WOULD EXPEDITE THE COMPLETION OF THE EVALUATION, AVOID A PROLONGED HIATUS AND ALLOW THE TEAM MORE TIME IN THE FIELD FOR SITE VISITS AND INTERVIEWS.

D. AS PER SECTION VI. LOGISTICAL SUPPORT: FUNDS HAVE BEEN BUDGETED FOR TEAM TO RENT VEHICLES AND OFFICE SPACE AND TO ACQUIRE SECRETARIAL AND ADMINISTRATIVE SUPPORT SERVICES AS DETERMINED BY TEAM LEADER. USAID/UV WILL PROVIDE ASSISTANCE IN ACQUIRING THESE SUPPORT SERVICES. ALSO, ALL PASA TEAM MEMBERS WILL BE ENTITLED TO FULL HEALTH UNIT SERVICES IN ACCORDANCE WITH MISSION POLICY. WALKER

12-19

N.A.N. Note taken of this; cable passed to USDA, to eval. team leader, and cable used in PASA discussions with USDA. RETHAN 1/18/8

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# Department of State

INCOMING TELEGRAM

PAGE 01 OUAGAD 07093 0909322 0907 0900.5 AID0289
ACTION AID-00

ACTION OFFICE AFDR-06
INFO AFEN-03 AFRA-03 AFEW-04 CMGT-02 CTR-02 STEN-01 SEST-01
PASA-02 AFDA-01 AGRI-01 NASA-02 RELO-01 MAST-01 AFPM-01
/031 A5 S 10

INFO OCT-06 /035 W
----------050225 0909322 /36

R 0909152 DEC 83
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC 8323

Summons

UNCLAS OUAGADOUGOU 07093

AIDAC

FOR AFR/PD/SWAP, AFR/RA, AFR/CDP, S&T/FNR AND S&T/WASH

E.O. 12356:N/A
SUBJECT:DECEMBER UPDATE ON USAID/UPPER VOLTA TDY REQUIREMENTS

REF. ABIDJAN 13321

1. SUMMARY:USAID/UPPER VOLTA HEREBY SUBMITS ITS TDY REQUIREMENTS FOR DECEMBER THROUGH FEBRUARY. REQUIREMENTS FOR MARCH THROUGH SEPTEMBER REMAIN THE SAME AS IDENTIFIED IN REFTEL. AID/W IS REQUESTED TO ADVISE US OF THE AVAILABILITY OF PERSONNEL. END SUMMARY.

2. SMALL ECONOMIC ACTIVITY DEVELOPMENT (686 0249): PFP/UV WILL DISCUSS WITH PFP/WASHINGTON THE STATUS OF RECRUITMENT OF A WATERSHED DEVELOPMENT SPECIALIST. WE WILL ADVISE AFR/CDP, B. BOYD, AS SOON AS WE KNOW WHETHER TO PROCEED WITH RECRUITMENT OF A SPECIALIST THROUGH THE PSC/PASA WITH THE NATIONAL PARK SERVICE.

3. GRAIN MARKETING DEVELOPMENT PROJECT (686 0243 EVALUATION:WE PLAN TO CONTRACT FOR THREE PEOPLE FOR THREE PERSON WEEKS EACH THROUGH AN LDC FIRM IN LATE MARCH. PIO/T WILL BE ISSUED IN LATE DECEMBER OR EARLY JANUARY.

4. FORESTRY EDUCATION & DEVELOPMENT (686-0275): WE MAY REQUIRE ROY HAGEN FROM USDA IN LATE JANUARY OR EARLY FEBRUARY TO GIVE CLASSES AND CONDUCT PRACTICAL FIELD WORK ON SOILS MAPPING AND AERIAL PHOTOGRAPHY. SCOPE OF WORK WAS ALREADY SENT, BUT MAY BE REVISED.

5. FORESTRY EDUCATION & DEVELOPMENT (686-0235): GERRY HAWKES' SERVICES ARE REQUESTED FROM USDA FOR LATE JANUARY OR EARLY FEBRUARY TO SET UP THE SAW MILL AND FOREST MANAGEMENT UNIT ON FOREST UTILIZATION. SOW WAS ALREADY SENT, BUT MAY BE REVISED.

6. REGIONAL REMOTE SENSING PROJECT (698-0420):VAL MAHAN OF AFR/RA AND DR. CHARLES PAUL OF S&T/FNR WILL BE INVITED TO ATTEND THE REGIONAL CRTO MEETINGS IN OUAGADOUGOU AROUND JANUARY 15, ONCE WE RECEIVE THE FORMAL INVITATION. PLEASE ADVISE US OF THE AVAILABILITY OF MAHAN AND DR. PAUL.

7. REGIONAL REMOTE SENSING PROJECT (698-0420):PAUL MIKA'S SERVICES WILL BE REQUIRED THROUGH SPECTRAL DATA TO FILL IN AS JIM SORENSON'S REPLACEMENT AND CONDUCT THE ANGLOPHONE STAGE BEGINNING IN DECEMBER AND RUNNING THROUGH MARCH 31.

8. RURAL WATER SUPPLY PROJECT (686-0228) REDESIGN: S&T/WASH SERVICES WILL BE REQUIRED FOR THE REDESIGN OF

OUAGAD 07093 0909322 0907 0900.5 AID0289
THIS PROJECT. ON A DATE JANUARY 20, SHEFFIELD CONSULTING IS DRAFTING A SCOPE OF WORK FOLLOWING HIS RECENT ASSESSMENT OF THE PROJECT. WE WILL FORWARD THE SOW AS SOON AS POSSIBLE.

9. SAFGRAD (698-0393) EVALUATION: WE WILL REQUIRE AN AGRICULTURAL ECONOMIST, A MANAGEMENT SPECIALIST, AND A TRAINING SPECIALIST FROM WDC FOR THE PERIOD JANUARY 5 THROUGH FEBRUARY 22. EMPLOYMENT SERVICES ARE BEING REQUESTED BY CEPTEL FROM CDET FOR FEBRUARY 2 THROUGH 16. DIANE MCLEAN'S SERVICES ARE BEING REQUESTED BY CEPTEL FROM REDSO FOR THE PERIOD JANUARY 19 THROUGH FEBRUARY 2.

10. WE ASSUME NASA IS STILL PLANNING TO SEND A TEAM TO INSTALL THE SOLAR RUN MEDICAL REFRIGERATOR IN OROGARA. ONCE THE REFRIGERATOR ARRIVES IN UPPER VOLTA, NASA SHOULD ADVISE US OF THE COMPOSITION OF THE TEAM AND REQUEST MISSION AND COUNTRY CLEARANCE BEFORE SENDING THE TEAM. WALKER

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INCOMING TELEGRAM

PAGE 01 OUAGAD 06367 031627Z 7932 063265 AID8878

ACTION AID-00

Gray

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ACTION OFFICE AFRA-03

INFO AFEM-03 AFFW-04 PPCE-01 PPPB-02 RELO-01 TELE-01 MAST-01
AFPM-01 /017 A3 23

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FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC IMMEDIATE 7934

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UNCLAS OUAGADOUGOU 06367

AIDAC

FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: USAID CLEARANCE FOR GRAY AND THOMAS.

REF: A. STATE 310964

USAID/UV GRANTS CLEARANCE FOR R. GRAY AND W. THOMAS TRAVEL TO OUAGADOUGOU TO ATTEND SAFGRAD PROJECT CONSULTATIVE COMMITTEE MEETING NOVEMBER 7-8, 1983 AND TO DISCUSS SOW FOR PROJECT EVALUATION. RESERVATIONS MADE AT HOTEL SILMANDE AND USAID WILL MEET AND ASSIST AT AIRPORT. WALKER

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INCOMING TELEGRAM

PAGE 01 OUAGAD 06246 261705Z 9535 058722 AID1233

ACTION AID-00

Gray 10-26

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ACTION OFFICE AFRA-03

INFO AFFW-04 PPDC-01 RELO-01 MAST-01 /010 A2 1027

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INFO OCT-00 /035 W

----------321047 262056Z /38

R 261605Z OCT 83
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC 7860

UNCLAS OUAGADOUGOU 06246

AIDAC

FOR R. GRAY, AFR/RA

E.O. 12356: N/A
SUBJECT: SAFGRAD CONSULTATIVE COMMITTEE MEETING NOVEMBER 7-8, 1983 AND PROJECT EVALUATION.

1. THE CONSULTATIVE COMMITTEE MEETING FOR THE SAFGRAD PROJECT IS TO BE HELD NOVEMBER 7-8, 1983 IN OUAGADOUGOU. USAID/UV IS UNDER THE IMPRESSION THAT R. GRAY WILL TRAVEL TO UPPER VOLTA TO ATTEND MEETING. PLEASE ADVISE.

2. JOHN BECKER HAS INFORMED USAID/UV THAT HE AND AFR/RA HAVE TENTATIVELY SCHEDULED EVALUATION OF SAFGRAD FOR JANUARY 5 - FEBRUARY 3, 1984. USAID/UV ASSUMES BECKER AND AFR/RA HAVE DEVELOPED A PRELIMINARY SCOPE OF WORK (SOW) FOR EVALUATION WHICH CAN BE DISCUSSED AT CONSULTATIVE COMMITTEE MEETING WITH OAU/STRC. PLEASE ADVISE AND CABLE SOW FOR USAID/UV REVIEW. WALKER

Department of State

INCOMING TELEGRAM

PAGE 01 OUAGAD 05694 300916Z 0512 039950 AID8791
ACTION AID-00

ACTION OFFICE AFDP-06
INFO AAAF-02 AFRA-03 AFFW-04 AFDR-06 PPCE-01 AFDA-01 RELC-01 9:30
MAST-01 /025 A4 830

INFO OCT-00 /035 W
331602 300918Z /38

P 300901Z SEP 83
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC PRIORITY 7519

UNCLAS OUAGADOUGOU 05694

AIDAC

FOR: AFR/DP/PPEA, MARY COLEMAN

E.O. 12356: N/A
SUBJECT: FY 84 EVALUATION PLAN

REF. STATE 276094

1. FOLLOWING IS LIST OF USAID/UPPER VOLTA FY 84 PLANNED EVALUATIONS IN RANK ORDER:

A. SAHEL REG. AID COORDINATION AND PLANNING (CILSS COMPONENT) - 625-0911

B. SAFGRAD - 698-0393

C. AGRIC. HUMAN RESOURCES DEV. - 686-0221

D. INTEGRATED PEST MANAGEMENT RESEARCH - 625-0928

E. GRAIN MARKETING DEVELOPMENT - 686-0243

F. STRENGTHENING HEALTH PLANNING CAPACITY - 686-0251

G. SMALL ECON. ACTIVITY DEV. (OPG) - 686-0249

H. LOCAL REVENUE ADMIN. 931-5303
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INCOMING TELEGRAM

PAGE 01 OUAGAD 05409 161356Z 4188 032542 AID/060

ACTION AID-00

Gray

ACTION OFFICE AFDR-06

INFO AFEM-03 AFRA-03 STAG-02 SAST-01 STIU-01 AFDA-01 STFA-01

RELO-01 MAST-01 /020 A3 620

9/16

INFO OCT-00 /035 W

112112 170813Z /38

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FM AMEMBASSY OUAGADOUGOU

TO SECSTATE WASHDC 0000

UNCLAS OAUGADOUGOU 05409

AIDAC

E.O. 12356: N/A

SUBJECT: COOPERATION FOR DEVELOPMENT IN AFRICA (CDA)

LIPPOLD TDY

REF: STATE 254773

USAID/UPPER VOLTA CONCURS IN TDY VISIT OF PAUL LIPPOLD TO CONSULT WITH THE ADO ON FARMING SYSTEMS AND ON THE SCOPE OF WORK FOR THE UP-COMING SAFGRAD EVALUATION. PLEASE NOTIFY USAID/UPPER VOLTA WHEN ETA OUAGADOUGOU IS CONFIRMED TO PERMIT AIRPORT PICK-UP AND HOTEL ARRANGEMENTS.

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INCOMING TELEGRAM 9/15

PAGE 01 ABIDJA 12127 151230Z 8094 031497 AID5564

ACTION AID-00

Gray

ACTION OFFICE AFRA-03

INFO AFFW-04 AFCW-03 AFDP-06 AFDR-06 PPCE-01 PPPB-02 AFDA-01 RELO-01 MAST-01 DO-01 /029 A1 1117

SAFGRAD

INFO OCT-00 /035 W

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R 151226Z SEP 83
FM AMEMBASSY ABIDJAN
TO AMEMBASSY OUAGADOUGOU
INFO SECSTATE WASHDC 8915

UNCLAS ABIDJAN 12127

AIDAC

SECSTATE FOR R. GRAY, AFR/RA

E.O. 12356 N/A
SUBJECT: SAFGRAD EVALUATION (698-0393)

REF: OUAGADOUGOU 5007

1. MCLEAN RECENTLY RETURNED FROM TDY AND REGRETS DELAY IN ANSWERING REFTEL. PROPOSED TDY NOT POSSIBLE IN SEPTEMBER AS REDSO/WCA HAS SCHEDULING CONFERENCE 26-30 SEPTEMBER. AT THAT TIME ALL REQUESTS FOR ASSISTANCE WILL BE CONSIDERED AND WORK ASSIGNED. SUGGEST THAT AID/OUAGADOUGOU SEND PROPOSED SCOPE OF WORK AND SCHEDULE BY TELEGRAM OR WITH OUAGADOUGOU PARTICIPANT TO SCHEDULING CONFERENCE.

2. BEST REGARDS. CUNDIFF

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*Department of State*

INCOMING TELEGRAM

PAGE 01 OUAGAD 01041 230918Z 1561 070101 AID1124
ACTION AID-00

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ACTION OFFICE AFFW-04
INFO AAAF-02 AFRA-03 AFDR-06 PPCE-01 PDPR-01 PPPB-03 CMGT-02
STAG-02 STFN-01 SAST-01 ED-02 AFDA-01 STFA-01 RELO-01
MAST-01 /032 A4 823

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INFO OCT-00 AF-00 /045 W
----------362303 230939Z /38

R 230907Z FEB 83
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC 5006

2-23

UNCLAS OUAGADOUGOU 01041

cc: Schwartz

AIDAC

E.O. 12356: N/A
SUBJECT: FIRST QUARTER EVALUATION STATUS REPORT
- USAID/UPPER VOLTA

REF: 81 STATE 296300

THE STATUS OF FY 83 EVALUATION ACTIVITIES, AS LISTED IN USAID'S EVALUATION PLAN, FOLLOWS:

A. FORESTRY EDUCATION AND DEVELOPMENT (686-0235):
- PIO/T COMPLETED, EVALUATION IS EXPECTED TO COMMENCE O/A
- MARCH 1, 1983;

B. GRAIN MARKETING DEVELOPMENT (686-0243):
- EVALUATION - REVIEW COMPLETED 11/82;

C. RURAL ARTISAN TRAINING CENTERS (625-0937.08):
- STILL SCHEDULED FOR THIRD QUARTER;

D. STRENGTHENING WOMEN'S ROLES IN DEVELOPMENT AND TRAINING WOMEN IN THE SAHEL (686-0211 AND 686-0226):
- STILL SCHEDULED FOR FOURTH QUARTER;

E. FOUNDATION SEED PRODUCTION (686-0245):
- RESCHEDULED FOR THE FOURTH QUARTER;

F. REGIONAL REMOTE SENSING (698-0420):
- TWO MEMBERS OF A THREE-PERSON TEAM IDENTIFIED - FIELD
- WORK SHOULD START THE MIDDLE OF MARCH;

G. SAFGRAD (698-0393):
- A PROJECT EVALUATION SUMMARY (PES) FOR A 1981 EVALUATION OF THIS PROJECT IS NEARING COMPLETION - SUBMISSION IS SCHEDULED FOR 3/83;
H. BAZEGA FISH FARM (698-0410.08):
- FIELD WORK WAS COMPLETED 12/82; PES TO BE SUBMITTED 3/83.

WALKER

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Department of State

INCOMING TELEGRAM

Gray
Rose

PAGE 01 NAIROB 13268 041400Z 8237 008756 AID6568
ACTION AID-35

ACTION OFFICE AFDP-02
INFO AFEA-03 AFRA-03 FM-02 AAST-01 STEN-01 ENGR-02 AFDA-01
INT-04 NASA-02 RELO-01 MAST-01 /023 A4 707

INFO OCT-00 AMAD-01 /036 W
344732 041946Z /38

R 041231Z JUN 82
FM AMEMBASSY NAIROBI
TO SECSTATE WASHDC 2710

UNCLAS NAIROBI 13268

AIDAC

FOR AFR/DP AND AFR/RA

E.O. 10265: N/A
SUBJECT: FY 82 MISSION EVALUATION STATUS REPORT -
SECOND QUARTER

REF: (A) STATE 148931, (B) 81 STATE 290300

1. REDSO/EA EVALUATION STATUS REPORT IS AS FOLLOWS:

- A. SECOND QUARTER
- (1) SUPPORT TO REGIONAL ORGANIZATIONS:
- RESEARCH ON CRITICAL CROP PESTS (698.0413.3).
- PES SUBMITTED TO AFR/RA FOR OFFICE DIRECTOR
- SIGNATURE AND DISTRIBUTION ON FEB. 18, 1982.

- B. FIRST QUARTER
- (1) REMOTE SENSING (698.014). PES SUBMITTED
- OCTOBER 23, 1981.

2. NO FURTHER EVALUATIONS SCHEDULED FOR FY 82, HENCE
NO ADDITIONAL QUARTERLY REPORTS WILL BE SUBMITTED.
HOUDEK

ACTION OFFICE AFRA-03
INFO AAAF-01 AFDR-00 PPCE-01 PDPR-01 PPPB-03 AACT-01 STAG-02
ENGR-02 IT-06 AFDA-01 AGRI-01 REIO-01 DAEN-01 HAST-01
/031 A4 S77

INFO OCT-02 AF-10 /047 W
----------130717 2121012Z /63

R 211145Z OCT 81
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC 038
INFO AMEMBASSY RABAT

UNCLAS OUAGADOUGOU 5897

AIDAC

RABAT FOR RC SWAIN

E.O. 12065: N/A
SUBJECT: SAFGRAD 698-0392; USAID COMMENT ON
PROJECT EVALUATION

REF: (A) STATE 250873; (B) OUAGA 5250 (NOTAL)

1. USAID HAS NO BASIC DISAGREEMENT WITH FACTS AS SET FORTH IN EVALUATION EXECUTIVE SUMMARY. IT CONCURS WITH RECOMMENDATION 3 THAT ATTENTION SHOULD BE GIVEN TO PERMANENCE OF SAFGRAD AS AN INSTITUTION OF OUA AND THAT INSTITUTION BUILDING SHOULD BE MADE A PROJECT PURPOSE.

2. USAID ALSO AGREES THAT IT WOULD BE DESIRABLE TO HAVE OAU DO HOST COUNTRY CONTRACTING. ALTHOUGH OAU/STRC DOES NOT NOW HAVE CAPABILITY OF PERFORMING THIS FUNCTION, IN USAID'S OPINION, TRAINING TO DEVELOP FINANCIAL MANAGEMENT AND CONTRACTING SKILLS CAN BE GIVEN TO OAU/STRC PERSONNEL BY USAID CONTROLLER'S OFFICE (RECOMMENDATION5). OAU WILL HAVE TO RECRUIT ADDITIONAL PERSONNEL TO RECEIVE THIS TRAINING, PREFERABLY A PROFESSIONAL ACCOUNTANT.
3. RECOMMENDATION 6: USAID U.V. CONCURS STRONGLY IN THIS RECOMMENDATION THAT OAU/STRC SHOULD RETAIN ITS AUTONOMY VIS-A-VIS OAU LAGOS OFFICE IN VIEW OF COMMUNICATIONS PROBLEMS AND UNFAMILIARITY OF OAU LAGOS PERSONNEL WITH PROJECT.

4. PERSONNEL (RECOMMENDATION 7): ONLY NEW PERSONNEL ESSENTIAL FOR OUAGA PROJECT OFFICE ARE FOR FINANCIAL MANAGEMENT (REFERRED TO IN PARA 2. USAID DOES NOT AGREE THAT ANOTHER AID DH EMPLOYEE IS NEEDED AT THIS TIME AS AN ADMINISTRATIVE ASSISTANT TO PROJECT DIRECTOR.

5. USAID ALSO TAKES ISSUE WITH RECOMMENDATION 9 THAT OAU/STRC SHOULD CONSIDER ESTABLISHING A RESEARCH CENTER UNDER SAFGRAD TO AVOID QUESTION OF NATIONAL SENSITIVITY. IT IS USAID OPINION THAT UP TO PRESENT PROJECT PRINCIPALS HAVE GONE OUT OF THEIR WAY TO AVOID OFFENDING NATIONAL SENSITIVITIES. AS REGARDS KAMBOINSE RESEARCH STATION IT IS USAID'S VIEW THAT GOOV, WHOSE STATION IT IS, HAS BEEN KEPT INFORMED OF PROJECT PROGRESS AND HAVE WELCOMED PROJECT ACTIVITIES AND IMPROVEMENTS TO INFRASTRUCTURE AT KAMBOINSE WHICH PROJECT HAS DEVELOPED. IN ANY CASE, ESTABLISHING A SEPARATE SAFGRAD RESEARCH STATION AFTER THE CONSIDERABLE TIME AND INVESTMENT ALREADY MADE AT KAMBOINSE WOULD SEEM TO HAVE LITTLE ECONOMIC JUSTIFICATION. IT SHOULD BE RECALLED THAT AT KAMBOINSE



THERE WAS VERY LITTLE RESEARCH ACTIVITY GOING ON PRIOR TO START UP OF SAFGRAD PROJECT, PRINCIPALLY DUE TO VERY LIMITED GOOV FUNDS AVAILABLE AND SMALL STAFF WHICH LACKED EXPERTISE IN MANY FIELDS.
6. RECOMMENDATION 10: IT IS TRUE THAT MUCH OF RESEARCH OF PROJECT TO THE PRESENT HAS BEEN IN PLANT BREEDING, USAID THEREFORE AGREES WITH EVALUATION TEAM'S RECOMMENDATION THAT FUTURE PROJECT ACTIVITY SHOULD GIVE INCREASED IMPORTANCE TO SOIL AND WATER RESEARCH.

7. OTHER USAID COMMENT:

10-21

A) REFERENCES IN EVALUATION TO OTHER DONOR PARTICIPATION IN SAFGRAD ARE ALMOST NON-EXISTENT. B) ONLY AID-FUNDED ACFOS ARE CONSIDERED. THE DESIGN OF THE PROJECT AT LEAST CALLED FOR ACFOS IN ALL PARTICIPATING COUNTRIES.

C) TRAINING OF AFRICAN RESEARCHERS BY AID AND OTHER DONORS IS NOT REALLY ADDRESSED IN THE EVALUATION AND IN FACT IS ONLY TOUCHED ON SLIGHTLY.

D) HOST COUNTRY SUPPORT TO THE PROJECT CONCEPT WAS NOT ASSESSED IN A SYSTEMATIC WAY. HOW DO THE HOST COUNTRIES VIEW THE SAFGRAD PROJECT? THE REPORT IS SILENT ON THE MATTER. IN ADDITION, IT IS NOT CLEAR FROM THE REPORT HOW OAU ITSELF VIEWS THE PROJECT. DALSIMER

ACTION AID-35

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ACTION OFFICE AFRA-03

INFO AFFW-04 AFDR-06 PPCE-01 PDPR-01 PPPB-03 AFDA-01 RELO-01
MAST-01 /021 A4 728

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INFO OCT-01 /036 W

----------137530 251305Z /52

R 250802Z SEP 81
FM AMEMBASSY OUAGADOUGOU
TO SECSTATE WASHDC 9775

UNCLAS OUAGADOUGOU 5250

AIDAC

FOR AFR/RA

E.O. 12065: N/A
SUBJECT: SAIGRAD 698-0393

REF: STATE 250873

OAU COORDINATOR HAS NO SPECIAL COMMENT ON DRAFT EVALUATION REPORT. USAID COMMENTS TO FOLLOW BY SEPTEL. PLEASE ADVISE IF AFR/RA HAS GIVEN DRAFT EVALUATION TO PURDUE. AKADIRI IS OUT OF TOWN, BUT USAID BELIEVES THAT HE HAS NOT YET - AT LEAST OFFICIALLY - PASSED COPIES TO FSU, IITA OR ICRISAT. DALSIMER

Department of State

INCOMING TELEGRAM

PAGE 01 OUAGAD 04864 040811Z 0123 068027 AID6118

ACTION AID-35

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ACTION OFFICE AFRA-03

INFO AFFW-04 AFDR-06 AAST-01 STAG-02 AFDA-01 RELO-01 MAST-01 DO-01 /020 A2 07

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INFO OCT-01 /036 W

----------334145 050229Z /70

R 030416Z SEP 81

FM AMEMBASSY OUAGADOUGOU

TO SECSTATE WASHDC 9542

UNCLAS OUAGADOUGOU 4864

AIDAC

FOR: AFR/RA

E.O. 12065: N/A

SUBJECT: SAFGRAD 698-0393 DRAFT EVALUATION REPORT

REF: STATE 219038

1. OUA/STRC AND USAID/OUAGA FIND SUBSTANCE OF EVALUATION EXECUTIVE SUMMARY QUITE ACCEPTABLE.

2. AGREES TO USING EVALUATION SUMMARY AS AN INPUT TO C.C. MEETING AND CERTAIN PARTS OF SUMMARY TO T.A.C. MEETING. DALSIMER



444

UNCLASSIFIED

*Department of State*

INCOMING TELEGRAM

PAGE 01 RABAT 06051 261459Z 2360 060317 AID8209
ACTION AID-31

ACTION OFFICE AFRA-03
INFO AFFW-04 NENA-03 PDCE-01 PDPR-01 PPPU-03 PREA-01 AAST-01
STAG-02 AFDA-01 AGRI-01 PELO-01 MAST-01 /013 A4 /?26

INFO OCT-01 AF-10 NEA-07 /049 W
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R 260800Z AUG 81
FM AMEMBASSY RABAT
TO SECSTATE WASHDC 9939
INFO AMEMBASSY OUAGADOUGOU

UNCLAS RABAT 6051

AIDAC/SECSTATE FOR AFR/RA.

E.O 12065 N/A
SUBJECT: SAFGRAD 698-0393 - SUMMARY OF DRAFT EVALUATION REPORT.

REF: STATE 219038

1. WHILE AWAITING DRAFT EVALUATION REPORT, MCSWAIN WILL LIMIT HIS COMMENTS OF THE EXECUTIVE SUMMARY TO THE FOLLOWING:
A. RECOMMENDATION 4 AND TO SOME EXTENT RECOMMENDATION 3 APPEAR TO BE IN DIRECT CONFLICT WITH RECOMMENDATION 2.

B. UNDER C) REGIONAL LEVEL RESEARCH PARA 2 WHICH STATES VOLTAIC OFFICIALS EXPRESSED CONCERN OVER THE LOSS OF CONTROL OF THEIR OWN RESEARCH PROGRAM. I BELIEVE THIS TO BE A FAULTY CONCLUSION BASED ON ERRONEOUS FACTS. SAFGRAD WAS ASKED BY THE GOUV TO DEVELOP KAMBIONSE STATION AS A REGIONAL RESEARCH STATION FOR FOOD GRAINS. THERE WAS NO FOOD GRAIN RESEARCH BEING CONDUCTED THEREBEFORE ICRISAT AND IITA STARTED IT. MOST VOLTAIC OFFICIALS ARE PLEASED WITH THE RESEARCH AND PROGRESS BEING MADE AT THE STATION AND BRING MANY VISITORS THERE. SAFGRAD SCIENTISTS PRESENT THEIR ANNUAL WORK PLANS AND RESULTS AT THE YEARLY VOLTAIC RESEARCH MEETINGS FOR APPROVAL. THE VOLTAIC STATION DIRECTOR ALLOTS THE LAND AT KAMBOINSE FOR SAFGRAD USE. VOLTAIC TECHNICIANS WORK WITH SAFGRAD RESEARCHERS. ONLY ONE MINOR OFFICIAL HAS EXPRESSED ANY CONCERN OVER LOSS OF CONTROL OF THE RESEARCH. THIS DOES NOT REFLECT THE GENERAL FEELING OF THE GOUV.
SEBASTIAN

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VA15

ACTION COPY

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Department of State

INCOMING TELEGRAM

PAGE 01 COTONO 00924 150941Z 4620 005134 AID1689

ACTION AID-35

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ACTION OFFICE AFRA-03

INFO AAAF-01 AFFW-04 AFCW-03 AFDR-06 CH6-01 PPCE-01 PDPR-01 575
PPPB-03 PPEA-01 FM-02 IT-06 CH8-01 AFDA-01 RELO-01
TELE-01 MAST-01 /037 A3

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INFO OCT-01 /036 W

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O 150858Z MAY 81
FM AMEMBASSY COTONOU
TO /AMEMBASSY ABIDJAN IMMEDIATE 4175
AMEMBASSY OUAGADOUGOU IMMEDIATE
INFO SECSTATE WASHDC PRIORITY 3476
AMEMBASSY LAGOS
AMEMBASSY LOME

UNCLAS COTONOU 0924

AIDAC FM GUILD

E.O. 12065: N/A
SUBJECT: SAFGRAD EVALUATION PARTICIPANT DR. LEOPOLD FAKAMBI

REF: STATE 122257 COTONOU 0891

RESERVATIONS CONFIRMED FOR FAKAMBI AS FOLLOWS. ETD COTONOU SATURDAY 16 MAY AT 18:55 VIA RK 37 FOR ABIDJAN. ETA OUAGADOUGOU FROM ABIDJAN SAME EVENING VIA RK 38. FAKAMBI SHOULD RECEIVE HIS EXIT VISA LATE TODAY. WILL ADVISE IF NECESSARY.
BULLINGTON

UNCLASSIFIED

*Department of State*

OUTGOING TELEGRAM

PAGE 01 STATE 151522 2138 100233 AID8801
ORIGIN AID-00

ORIGIN OFFICE AFRA-03
INFO AFFW-04 AFCW-03 AFDR-06 RELO-01 MAST-01 /018 A2 1023

INFO OCT-00 AF-00 /000 R

DRAFTED BY AID/AFR/RA:REGRAY:JD
APPROVED BY AID/AFR/RA:WHNAYLOR, JR.
AID/AFR/RA:WSHERWIN
AID/AFR/TR/ARD:CWIGGIN (INFO)
----------211032 231232Z /38

R 230633Z MAY 84
FM SECSTATE WASHDC
TO AMEMBASSY LAGOS
INFO AMEMBASSY OUAGADOUGOU

UNCLAS STATE 151522

AIDAC, LAGOS FOR K. MC MANUS. PLEASE PASS TO IITA FOR

E.O. 12356: N/A
TAGS:
SUBJECT: IITA COMMENTS ON SAFGRAD DRAFT EVALUATION

AIDAC CONT, HARTMANS AND ASNANI

1. TEAM LEADER, SAFGRAD EVALUATION TEAM, IN NEED OF IITA COMMENTS ON DRAFT SAFGRAD EVALUATION. COMMENTS NEEDED SO THAT EVALUATION REPORT CAN BE FINALIZED.

2. PLEASE ADVISE IF THESE ALREADY SENT, TO WHOM, WHEN SENT AND BY WHAT MEANS.

3. IF NOT SENT, PLEASE SEND TO ROBERT GRAY, AID/AFR/RA, ROOM 4533, NEW STATE, WASHINGTON, D.C. 20523. GRAY WILL FORWARD TO TEAM LEADER.

4. BEST REGARDS. SHULTZ

Department of State

OUTGOING TELEGRAM

PAGE 01 STATE 049775 3969 031953 AID3368

ORIGIN AID-00

Gray

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ORIGIN OFFICE AGRI-01

INFO AFRA-03 AFFW-04 FM-02 CMGT-02 CTR-02 RELO-01 MAST-01

AFPM-01 /017 A4 820

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INFO OCT-00 AF-00 /035 R

DRAFTED BY USDA/OICD/TA/AFR:HHUGHES:BAS

APPROVED BY USDA/OICD/TA:WSHOOFNAGLE

AID/SOD/CM:JROEN (INFO)

AID/AFR:WSAULTERS (INFO)

AID/STATE:RGRAY (PHONE)

---------- 124523 180300Z /38

P 180129Z FEB 84

FM SECSTATE WASHDC

TO AMEMBASSY OUAGADOUGOU PRIORITY

UNCLAS STATE 049775

AIDAC

E.O. 12356 N/A

TAGS:

SUBJECT: SAFGRAD EVALUATION 698-0393

REF: PIO/T 698-0393-2-20047

BOB GRAY IS HAND CARRYING A USDA BUDGET FOR APPROX DOLLARS 99,000. PLEASE ADVISE WHEN A PIO/T AMENDMENT COVERING THIS ADDITIONAL DOLLARS 18,000 CAN BE EXPECTED. DAM

*Department of State*

OUTGOING TELEGRAM

PAGE 01 STATE 044108 1277 027412 AID8733

ORIGIN AID-00

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ORIGIN OFFICE AFRA-03

INFO AFFW-04 AFDR-06 PPCE-01 PPPB-02 AFDA-01 RELO-01 MAST-01 /019 A5 314

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INFO OCT-00 AF-00 /035 R

DRAFTED BY AID/AFR/RA:REGRAY:HSA

APPROVED BY AID/AFR/RA:WHNAYLOR,JR.

AID/AFR/RA:JSLATTERY

AID/AFR/SWA:WSAULTERS (INFO)

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O 140112Z FEB 84

FM SECSTATE WASHDC

TO AMEMBASSY OUAGADOUGOU IMMEDIATE

UNCLAS STATE 044108

AIDAC

E.O. 12356: N/A

TAGS:

SUBJECT: SAFGRAD 698-0393 EVALUATION

FROLIK AND GRAY ETA TUESDAY FEB. 14 ON UT 831. CONNECTION TIME IN PARIS IS VERY SHORT. IF CANNOT MAKE CONNECTION IN PARIS, WILL ADVISE OF ALTERNATE ARRIVAL. SHULTZ

# Department of State

OUTGOING TELEGRAM


ORIGIN AID-00

ORIGIN OFFICE AFRA-01
INFO AFEA-03 AFDR-06 PPCE-01 PPPB-02 AFDA-01 RELO-01 MAST-01
/018 A5 313

INFO OCT-00 AMAD-01 /003 R

66011
DRAFTED BY: AFR/RA:REGRAY
APPROVED BY: AFR/RA:WHNAYLOR, JR.
----------206465 111721Z /38

P 111442Z FEB 84
FM SECSTATE WASHDC
TO AMEMBASSY NAIROBI PRIORITY

UNCLAS STATE 043000

AIDAC FOR REDSO/ESA

FOLLOWING REPEAT OUAGADOUGOU 564, ACTION SECSTATE JAN 26:

QUOTE UNCLAS OUAGADOUGOU 564

AIDAC

FOR R.GRAY, AFR/RA

E.O. 12356:N/A
SUBJECT: SAFGRAD PROJECT, 698-0393, EVALUATION

REF. OUAGA 0434

1. THE FOLLOWING ARE THE MORE DETAILED SOWS FOR EVALUATION TEAM MEMBERS:

- A. TEAM LEADER - MITCHELL

THE SAFGRAD PROJECT IS A REGIONAL AGRICULTURAL RESEARCH PROJECT COMPRISED OF SEVERAL ACTIVITIES BEING IMPLEMENTED IN SEVERAL LOCATIONS. THE EVALUATION MUST ADDRESS ADMINISTRATIVE ARRANGEMENTS IN TERMS OF THE COORDINATION FUNCTION AS PERFORMED BY OAU/STRC AND THE TECHNICAL/ SCIENTIFIC ASPECTS AS CARRIED OUT BY THE VARIOUS RESEARCH ENTITIES. THE FINAL EVALUATION REPORT MUST BE A COMPREHENSIVE AND COHESIVE DOCUMENT WHICH WILL ASSIST USAID, OAU/STRC AND OTHER PROJECT COOPERATORS IN ADDRESSING POLICY ISSUES AND IN DESIGNING MORE APPROPRIATE INTERVENTIONS FOR A SAFGRAD PHASE II. THE TEAM LEADER'S PRIMARY FUNCTION WILL BE TO INSURE THAT THE EVALUATION IS COMPLETED IN A TIMELY MANNER WHILE PROVIDING EFFECTIVE MANAGEMENT AND PROGRAM GUIDANCE TO ALL PROJECT ENTITIES. TO THIS END, THE TEAM LEADER WILL CARRY OUT THE FOLLOWING SCOPE OF WORK:

- PROVIDE GUIDANCE AND DIRECTION TO EVALUATION TEAM MEMBERS IN ACCORDANCE WITH AID EVALUATION METHODOLOGY AND PROCEDURES AS OUTLINED IN AID HANDBOOK 3, CHAPTER 12.

- ASSIST THE MANAGEMENT/ORGANIZATION SPECIALIST IN AN EVALUATION OF THE OVERALL SAFGRAD CONCEPT AND THE COORDINATION FUNCTION AS IMPLEMENTED BY OAU/STRC.
- RELATED TO 2 ABOVE, DETERMINE THE DEGREE THAT PARTICIPATING SAFGRAD COUNTRIES' NATIONAL RESEARCH PROGRAMS ARE INTEGRATED WITH THE REGIONAL RESEARCH SUPPORTED BY THE PROJECT.

- MANAGE THE COMPILATION OF THE EVALUATION FINAL REPORT. HE/SHE WILL BE THE PRINCIPAL EDITOR AND WILL INSURE THE EVALUATION REPORT IS A COHESIVE DOCUMENT AND IS SUBMITTED



IN A TIMELY MANNER.

- RELATED TO 4 ABOVE, PROVIDE FOR ALL LOGISTICAL SUPPORT TO THE EVALUATION TEAM. THIS WILL INCLUDE HIRING SECRETARIES AND ADMINISTRATIVE ASSISTANTS, RENTING VEHICLES, ETC. USAID/OV WILL PROVIDE SUPPORT IN THIS EFFORT.

2115

B. FARMING SYSTEMS SPECIALIST - SIMMONS.

THE SAFGRAD PROJECT HAS SUPPORTED THE FARMING SYSTEMS UNIT (FSU) WITH THE PURPOSE OF OBTAINING MORE AGROECOLOGICAL SPECIFIC INFORMATION REGARDING SMALL FARM CONDITIONS IN PARTICIPATING SAFGRAD COUNTRIES. INTRODUCING FARMING SYSTEMS RESEARCH (FSR) PROVIDES A VITAL FEEDBACK LINK IN TERMS OF CONSTRAINT IDENTIFICATION AND FARM LEVEL RESOURCE ALLOCATION DECISION FROM THE SMALL FARMER TO THE RESEARCH SCIENTISTS CONDUCTING BASIC VARIETAL AND AGRONOMIC RESEARCH. THIS PROCESS IS CONSIDERED VITAL TO A MORE ACCURATE APPRAISAL OF RESEARCH NEEDS AND MORE EFFECTIVE DISSEMINATION OF PROMISING TECHNOLOGIES. THE FARMING SYSTEMS RESEARCH SPECIALIST ON THE SAFGRAD EVALUATION TEAM WILL CARRY OUT THE FOLLOWING SCOPE OF WORK TO ASSESS THE FSU COMPONENT OF THE SAFGRAD PROJECT:

1. ASSESS THE FARMING SYSTEMS RESEARCH (FSR) METHODOLOGY WHICH HAS BEEN DEVELOPED BY THE PURDUE UNIVERSITY TECHNICAL ASSISTANCE TEAM IN TERMS OF:

- A. ITS APPROPRIATENESS RELATIVE TO OTHER MODELS DEVELOPED FOR USE IN THE SAHEL AND OTHER PARTS OF AFRICA I.E. THE ICRISAT ECONOMICS PROGRAM, ORSTROM, AND IRAT; INCLUDED SHOULD BE A COST-EFFECTIVENESS ANALYSIS OF THE SOCIO-ECONOMIC DATA COLLECTION ACTIVITIES IN RELATION TO OTHER METHODOLOGIES.

- B. ITS CONTRIBUTION TO INCREASED KNOWLEDGE OF SMALL FARM CONDITIONS, PRODUCTION CONSTRAINTS, AND FARM MANAGEMENT STRATEGIES; AND

- C. ITS POTENTIAL AS A MEANS OF FACILITATING THE TRANSFER OF INFORMATION CONCERNING SMALL FARM CONDITIONS AND FARMER ATTITUDES TOWARD IMPROVED TECHNOLOGIES TO APPROPRIATE RESEARCH INSTITUTIONS.

2. DETERMINE THE DEGREE OF INTEGRATION AND COLLABORATION THE FSU ACTIVITIES HAVE WITH OTHER SAFGRAD RESEARCH COOPERATORS (IITA, ICRUSAT) IN TERMS OF SELECTING TECHNOLOGIES TO BE TESTED/EVALUATED AND FOR FORMULATING THE SAFGRAD RESEARCH AGENDA.

3. RECOMMEND APPROPRIATE FSR INTERVENTIONS FOR THE REMAINDER OF THE SAFGRAD PROJECT AND FOR ANY PHASE II EFFORTS. TO THIS END, PROVIDE AN ASSESSMENT OF THE PROPOSED IFAD SUPPORT TO THE DEVELOPMENT TO ADDITIONAL FSUS IN OTHER SAFGRAD COUNTRIES.

C. SENIOR RESEARCH SCIENTIST - FROLIK

THE SAFGRAD PROJECT PROVIDES FOR THE SEMI-ARID ZONES OF AFRICA AN INSTITUTIONAL STRUCTURE WHICH PROMOTES THE COORDINATION OF CEREALS AND GRAIN LEGUME RESEARCH AND TRAINING OF PARTICIPATING COUNTRIES' RESEARCH SCIENTISTS. THE ACTUAL SAFGRAD RESEARCH AND TRAINING IS CONDUCTED BY VARIOUS RESEARCH ENTITIES WHICH CAN BE GROUPED INTO THREE CATEGORIES: PARTICIPATING AFRICAN STATES' NATIONAL RESEARCH INSTITUTES, INTERNATIONAL AGRICULTURAL RESEARCH CENTERS (IARCS), AND OTHER AGRICULTURAL RESEARCH ORGANIZATIONS WITH PROGRAMS IN THE SEMI-ARID ZONES. THE



450

SAFGRAD ORGANIZATION IS COMPRISED OF THREE COORDINATING BODIES; THE CONSULTATIVE COMMITTEE (CC) WHICH PROVIDES POLICY GUIDANCE AND PROGRAM MONITORING, THE TECHNICAL ADVISORY COMMITTEE (TAC) WHICH RECOMMENDS THE RESEARCH AND TRAINING AGENDA, AND THE COORDINATION OFFICE WHICH IMPLEMENTS THE SAFGRAD RESEARCH PROGRAM AS DIRECTED BY THE CC AND TAC. THE ADMINISTRATIVE ARRANGEMENTS AND INTER-INSTITUTIONAL AGREEMENTS EMPLOYED IN THE SAFGRAD ORGANIZATION ARE PROVIDED BY THE ORGANIZATION OF AFRICAN UNITY SCIENTIFIC, TECHNICAL AND RESEARCH COMMISSION (OAU/STRC). MEMBERSHIP IN THE CC AND TAC IS MADE UP OF REPRESENTATIVES OF ALL PARTICIPATING ENTITIES; OAU/STRC, MEMBER STATES, IARCS AND THE DONOR COMMUNITY. SINCE THE INCEPTION OF THE PROJECT, IARCS HAVE EXPANDED THEIR PROGRAMS IN AFRICA, NATIONAL RESEARCH PROGRAMS HAVE GROWN AND OTHER REGIONAL RESEARCH INSTITUTES HAVE BEEN CREATED. AS A RESULT, THE SCOPE OF THE SAFGRAD NETWORK WILL NEED TO BE REDEFINED RELATIVE TO THE INSTITUTIONAL DEVELOPMENT OF THESE OTHER RESEARCH ENTITIES. TO THIS END, THE SENIOR RESEARCH SCIENTIST PARTICIPATING ON THE EVALUATION TEAM WILL AID IN CLARIFYING THE ROLE OF THE SAFGRAD ORGANIZATION AND WILL CARRY OUT THE FOLLOWING SCOPE OF WORK:

- IN COLLABORATION WITH THE ORGANIZATION/MANAGEMENT SPECIALIST AND TEAM LEADER, ASSESS THE CONTINUED APPROPRIATENESS OF THE SAFGRAD ORGANIZATION AS AN INSTITUTIONAL COORDINATING MECHANISM FOR RESEARCH, TRAINING AND TECHNOLOGY TRANSFER FOR CEREALS AND GRAIN LEGUMES IN THE SEMI-ARID ZONE OF AFRICA.

- BASED ON 1 ABOVE; IF THE COORDINATION FUNCTION IS REQUIRED, RECOMMEND A MORE EFFICIENT OR EFFECTIVE ALTERNATIVE.

- ASSESS THE DEGREE OF INTEGRATION OF THE RESEARCH SUPPORTED BY SAFGRAD AT THE NATIONAL, REGIONAL AND INTERNATIONAL LEVELS AND MAKE RECOMMENDATIONS AS TO HOW THIS COULD BE ENHANCED AND FACILITATED.

- RECOMMEND HOW IARCS CAN PLAY A LARGER ROLE NOT IN ONLY CARRYING OUT RESEARCH, BUT ALSO IN COORDINATING RESEARCH WITH NATIONAL AND REGIONAL PROGRAMS.

- RELATED TO 4 ABOVE, DELINEATE THE MOST APPROPRIATE TYPE OF RELATIONSHIP BETWEEN THE IARCS AND USAID I.E. GRANT OR CONTRACTUAL; IN TERMS OF ACCOMMODATING THE RESEARCH REQUIRED BY THE PROJECT.

- ASSESS THE POTENTIAL FOR OTHER REGIONAL RESEARCH INSTITUTIONS AND PROGRAMS SUCH AS INTSORMIL AND INSAH TO ASSUME MORE RESPONSIBILITIES FOR SAFGRAD SUPPORTED ACTIVITIES.

- IN COLLABORATION WITH THE MANAGEMENT/ORGANIZATION SPECIALIST, REVIEW THE FUNCTIONS OF THE CC AND TAC IN TERMS OF DEVELOPING AND IMPLEMENTING THE SAFGRAD RESEARCH AGENDA, AND RECOMMEND HOW THESE COMMITTEES CAN BE MORE EFFECTIVE.

D. TRAINING EXTENSION SPECIALIST - MCKENNA

THE SAFGRAD PROJECT SUPPORTS TRAINING AT SEVERAL LEVELS: FARMER, NON-DEGREE AND DEGREE TRAINING. EACH CONTRACTOR UNDER SAFGRAD (IITA, ICRISAT, PURDUE) HAS TRAINING PROGRAMS WHICH ATTEMPT TO DEVELOP THE HOST COUNTRIES' CAPACITIES FOR IMPLEMENTING RESEARCH PROGRAMS. ADDITIONALLY, THE PROJECT HAS SENT 26 CANDIDATES FOR LONG TERM TRAINING IN VARIOUS AGRICULTURAL SCIENCES. OVERALL, THE SAFGRAD PROJECT HAS DEVOTED MUCH EFFORT AND



RESOURCES TO TRAINING PROGRAMS. THE TRAINING/EXTENSION SPECIALIST PARTICIPATING ON THE EVALUATION TEAM WILL CARRY OUT THE FOLLOWING SCOPE OF WORK TO ADDRESS ISSUES OF THE TRAINING ACTIVITIES:

- REVIEW THE SAFGRAD SUPPORTED LONG-TERM TRAINING IN TERMS OF:

- A. THE GEOGRAPHIC DISTRIBUTION OF PARTICIPANTS;
- B. ACADEMIC PERFORMANCE OF PARTICIPANTS;
- C. AREAS OF EMPHASIS, I.E. DISCIPLINES STUDIED;
- D. THE SELECTION PROCESS AND CRITERIA FOR SELECTION;
- AND MAKE RECOMMENDATIONS WHICH WILL IMPROVE THE
- LONG-TERM TRAINING PROGRAM

- REVIEW THE SHORT-TERM TRAINING PROGRAMS AS IMPLEMENTED BY THE INDIVIDUAL CONTRACT TEAMS IN TERMS OF THE RELEVANCE AND EFFECTIVENESS OF THE PROGRAMS IN DEVELOPING INTERMEDIATE LEVEL TECHNICIANS TO CARRY OUT THE VARIOUS RESEARCH PROGRAMS AND MAKE RECOMMENDATIONS FOR IMPROVING THE PROGRAMS.

THE PRINCIPAL MECHANISM OF LINKING RESEARCH TO THE FARMER AND EXTENSION SERVICE UNDER THE SAFGRAD PROGRAM INVOLVES THE USE OF AN ACCELERATED CROP PRODUCTION OFFICER (ACPO). PRESENTLY THE SAFGRAD PROJECT HAS 5 ACPOS WORKING IN SENEGAL, UPPER VOLTA, MALI, CAMEROON AND TOGO. ACPOS ARE ASSIGNED TO NATIONAL RESEARCH PROGRAMS TO CARRY OUT A PROGRAM OF FIELD/ON-FARM TESTING AND DEMONSTRATION OF RESEARCH RESULTS. THE TRAINING/EXTENSION SPECIALIST PARTICIPATING ON THE EVALUATION TEAM WILL CARRY OUT THE FOLLOWING SCOPE OF WORK TO DETERMINE THE EFFECTIVENESS OF THE ACPO PROGRAM:

- REVIEW THE ACPO PROGRAMS IN CAMEROON, SENEGAL, MALI AND UPPER VOLTA TO DETERMINE THE EFFECTIVENESS BY WHICH SAFGRAD REGIONALLY SUPPORTED RESEARCH IS BEING FURTHER TESTED AT THE FARM LEVEL. TO THIS END, ASSESS THE LINKAGES BETWEEN ACPOS AND SAFGRAD RESEARCH ENTITIES AND THE OAU/STRC COORDINATING OFFICE.

- BASED ON 1 ABOVE, ASSESS THE DEGREE OF EXTENSION SERVICE AND FARMER COLLABORATION IN IMPLEMENTING THE OFF-STATION RESEARCH TRIALS, I.E. TO WHAT DEGREE IS A FSR PERSPECTIVE INCORPORATED IN THEIR PROGRAMS.

- EVALUATE THE DEGREE OF INTEGRATION OF THE ACPO PROGRAMS WITH NATIONAL RESEARCH PROGRAMS (THIS WILL INCLUDE TO A CERTAIN DEGREE AN ASSESSMENT OF THE RELEVANCE OF SAFGRAD SUPPORT TO NATIONAL PROGRAMS) AND RECOMMEND ALTERNATIVE MECHANISMS FOR ACPO SUPPORT, I.E. IF ACPOS PROVIDE A VITAL LINK IN THE RESEARCH PROCESS, IS IT NOT IN THE INTEREST OF NATIONAL PROGRAMS TO ASSUME THEIR SUPPORT TO EXPAND THEIR CAPACITIES TO PERFORM THIS RESEARCH - EXTENSION-FARMER LIAISON FUNCTION?

E. ORGANIZATION/MANAGEMENT SPECIALIST - POIRIER

THE SEMI-ARID FOOD GRAINS RESEARCH AND DEVELOPMENT (SAFGRAD) ORGANIZATION PROVIDES FOR THE SEMI-ARID ZONES OF AFRICA AN INSTITUTIONAL STRUCTURE WHICH PROMOTES THE COORDINATION OF CEREALS AND GRAIN LEGUMES RESEARCH AND TRAINING OF PARTICIPATING COUNTRIES' RESEARCH SCIENTISTS. THE ACTUAL SAFGRAD RESEARCH AND TRAINING IS CONDUCTED BY NUMEROUS ENTITIES WHICH CAN BE GROUPED INTO THREE CATEGORIES: PARTICIPATING AFRICAN STATES' NATIONAL RESEARCH INSTITUTES, INTERNATIONAL AGRICULTURAL RESEARCH CENTERS (IARCS), AND OTHER AGRICULTURAL RESEARCH ORGANIZATIONS WITH PROGRAMS IN SEMI ARID ZONES. THE SAFGRAD ORGANIZATION IS COMPRISED OF THREE COORDINATING

BODIES; THE CONSULTATIVE COMMITTEE (CC) WHICH PROVIDES POLICY GUIDANCE AND PROGRAM MONITORING, THE TECHNICAL ADVISORY COMMITTEE (TAC) WHICH RECOMMENDS THE RESEARCH AND TRAINING AGENDA, AND THE COORDINATION OFFICE WHICH IMPLEMENTS THE SAFGRAD RESEARCH PROGRAM AS DIRECTED BY THE CC AND TAC. THE ADMINISTRATIVE SYSTEMS AND INTER-INSTITUTIONAL AGREEMENTS EMPLOYED IN THE SAFGRAD ORGANIZATION ARE PROVIDED BY THE ORGANIZATION AFRICAN UNITY SCIENTIFIC, TECHNICAL AND RESEARCH COMMISSION (OAU/STRC). MEMBERSHIP ON THE CC AND TAC IS MADE UP OF REPRESENTATIVES OF ALL THE PARTICIPATING ENTITIES; OAU/STRC, MEMBER STATES, IARCS, AND THE DONOR COMMUNITY. THUS, THE SAFGRAD ORGANIZATION IS COMPLEX WITH A MYRIAD OF ACTIVITIES BEING IMPLEMENTED TO ACHIEVE DIFFERENT SUB-OBJECTIVES OF THE PROJECT. GIVEN THIS ORGANIZATIONAL COMPLEXITY THE ORGANIZATION/MANAGEMENT SPECIALIST WILL PROVIDE AN ANALYSIS OF THE COORDINATION FUNCTION AND CARRY OUT THE FOLLOWING SCOPE OF WORK:

- PROVIDE AN ANALYSIS OF THE SAFGRAD ORGANIZATION IN TERMS OF:

- A. THE ADMINISTRATIVE STRUCTURE AND MANAGEMENT
- SYSTEMS OF THE OAU/STRC COORDINATION OFFICES IN
- LAGOS, NIGERIA AND OUAGADOUGOU, UPPER VOLTA AND
- ITS CAPACITIES TO PERFORM THE RESEARCH COORDINATION
- FUNCTION REQUIRED BY THE PROJECT;

- B. RELATED TO A. ABOVE, THE RELATIONSHIP BETWEEN THE
- OAU/STRC COORDINATION OFFICE AND OTHER PROJECT
- COOPERATORS, INCLUDING USAID, IN TERMS OF EFFICIENCY
- AND EFFECTIVENESS IN COORDINATING RESEARCH AND
- PROJECT IMPLEMENTATION AND MANAGEMENT;

- C. THE OAU/STRC FINANCIAL ACCOUNTING SYSTEM.

- BASED ON 1.A.B. AND C., MAKE RECOMMENDATIONS FOR IMPROVEMENTS AS REQUIRED.

- IN COLLABORATION WITH THE SENIOR RESEARCH SCIENTIST AND TEAM LEADER, AND BASED ON 1.A.B. AND C. ABOVE, ASSESS THE CONTINUED APPROPRIATENESS OF THE SAFGRAD ORGANIZATION AS AN INSTITUTIONAL COORDINATING MECHANISM FOR RESEARCH, TRAINING AND TECHNOLOGY TRANSFER.

- IN COLLABORATION WITH THE SENIOR RESEARCH SCIENTIST, REVIEW THE FUNCTIONS OF THE CC AND TAC IN TERMS OF DEVELOPING AND IMPLEMENTING THE SAFGRAD RESEARCH AGENDA.

F. RESEARCH AGRONOMIST-TAYLOR

THE SAFGRAD PROJECT PURPOSE IS TO DEVELOP IMPROVED CEREAL VARIETIES (MILLET, SORGHUM AND MAIZE) AND GRAIN LEGUMES (COWPEA, GROUNDNUT) AND IMPROVED CULTURAL PRACTICES WHICH ADDRESS PRODUCTION CONSTRAINTS OF SMALL FARMER SEMI-ARID AGRICULTURE. THE DEVELOPMENT OF IMPROVED TECHNOLOGIES IS CRUCIAL TO ANY EFFORTS AT INCREASING AGRICULTURAL PRODUCTION AND SMALL FARMER PRODUCTIVITY. THE RESEARCH UNDERTAKEN BY THE PROJECT IS SUPPORTED AT THE REGIONAL AND NATIONAL LEVELS. THE REGIONAL RESEARCH IS CONDUCTED AT THE KAMBOINSE RESEARCH STATION IN UPPER VOLTA, SAMARU STATION IN NIGERIA AND NAIROBI, KENYA. SAFGRAD REGIONAL RESEARCH IS SUPPORTED AT THE NATIONAL LEVEL THROUGH PROGRAMS OF FIELD/ON-FARM TRIALS AND OTHER TYPES OF OUTREACH EXTENSION PROGRAMS AIMED AT FURTHER TESTING, DEVELOPING AND EXTENDING IMPROVED TECHNOLOGIES. THE INTERNATIONAL INSTITUTE FOR TROPICAL AGRICULTURE (IITA) HAS PRIMARY RESPONSIBILITY FOR CONDUCTING RESEARCH ON MAIZE AND GRAIN LEGUMES AND THE INTERNATIONAL CROP RESEARCH INSTITUTE FOR THE SEMI-ARID TROPICS (ICRISAT) CONCENTRATES ON MILLET, SORGHUM AND PRODUCTION AGRONOMY



RESEARCH. AS THE SAFGRAD PROJECT'S MAJOR EMPHASIS HAS BEEN TO SUPPORT BASIC VARIETAL AND AGRONOMIC RESEARCH, THE RESEARCH AGRONOMIST WILL ADDRESS THE TECHNICAL ISSUES OF THE RESEARCH CONDUCTED BY THE SAFGRAD PROJECT BY CARRYING OUT THE FOLLOWING SCOPE OF WORK:

- REVIEW THE RESEARCH ACTIVITIES IMPLEMENTED BY THE SAFGRAD SUPPORTED ENTITIES AND EVALUATE THE VARIETAL AND AGRONOMIC IMPROVEMENT PROGRAMS OF IITA AND ICRISAT IN TERMS OF THEIR SCIENTIFIC QUALITY AND APPROPRIATENESS GIVEN THE PRODUCTION CONSTRAINTS (LOW RAINFALL, LOW AND DETERIORATING SOIL FERTILITY) OF SEMI-ARID CONDITIONS.

- BASED 1 ABOVE, RECOMMEND PRIORITY AREAS AND MOST EFFECTIVE RESOURCE ALLOCATIONS IN TERMS OF RESEARCH (VARIETAL VS AGRONOMIC; ON-STATION VS OFF-STATION, EXPANDED FSR, MORE EMPHASIS ON LOCAL VARIETIES VS DEVELOPMENT ON NEW VARIETIES) WHICH SHOULD BE ADDRESSED DURING THE REMAINING LIFE OF THE CURRENT PROJECT AND A PHASE II EFFORT.

- ASSESS THE SAFGRAD CONCEPT OF REGIONALLY SUPPORTED RESEARCH FROM A TECHNICAL POINT OF VIEW IN TERMS OF EFFICIENCY AND EFFECTIVENESS IN COORDINATING RESEARCH TO DETERMINE ITS RELEVANCE TO NATIONAL PROGRAMS AND AGROECOLOGICAL SPECIFIC NEEDS AND MAKE RECOMMENDATIONS FOR A MORE EFFECTIVE STRUCTURE AND LINKAGES.

- REVIEW THE VARIOUS SCIENTIFIC CONFERENCES SUPPORTED BY SAFGRAD TO DETERMINE THEIR EFFECTIVENESS AT INFORMATION DESSIMINATION AMONG RESEARCH SCIENTISTS AND TO WHAT EXTENT THEY PROMOTE INCREASED COLLABORATION IN ADDRESSING RESEARCH NEEDS, AND MAKE RECOMMENDATION FOR FUTURE SUPPORT OF THESE ACTIVITIES.

G. AGRICULTURAL ECONOMIST-BEKURE

SEVENTY TO EIGHTY PER CENT OF THE POPULATION OF THE SAFGRAD COUNTRIES ARE ENGAGED IN RAINFED AGRICULTURE. THE MAJORITY OF THESE FARMERS DEPEND ALMOST ENTIRELY ON CEREAL PRODUCTION FOR THEIR LIVELIHOOD. MILLET, SORGHUM, AND MAIZE PRODUCTION ACCOUNT FOR APPROXIMATELY EIGHTY PER CENT OF ALL CEREALS PRODUCED IN THE SEMI-ARID REGIONS OF THE PARTICIPATING SAFGRAD COUNTRIES. IN TERMS OF ECONOMIC RETURNS, RESEARCH INVESTMENTS HAVE HIGH COST-BENEFIT POTENTIAL. THE SAFGRAD PROJECT EVALUATION MUST ESTIMATE AND DOCUMENT THE ACTUAL AND POTENTIAL ECONOMIC RETURNS TO USAID'S INVESTMENT IN SAFGRAD, AND TO THIS END THE AGRICULTURAL ECONOMIST PARTICIPATING ON THE SAFGRAD EVALUATION WILL CARRY OUT THE FOLLOWING SCOPE OF WORK:

- REVIEW THE RESEARCH ACTIVITIES IMPLEMENTED BY THE SAFGRAD SUPPORTED ENTITIES AND IDENTIFY TECHNOLOGIES (VARIETIES AND CULTURAL PRACTICES) BEING PROMOTED BY THE PROJECT WHICH HAVE POTENTIAL FOR WIDESPREAD ADOPTION AMONGST FARMERS OF THE PARTICIPATING COUNTRIES.

- BASED ON ONE ABOVE, ESTIMATE THE ECONOMIC IMPACT, BOTH DIRECT AND INDIRECT OF THE IMPROVED TECHNOLOGIES ON SEMI-ARID SMALL FARM AGRICULTURAL PRODUCTION, AND DETERMINE THE MOST COST-EFFECTIVE RESOURCE ALLOCATION AMONGST DIFFERENT RESEARCH ACTIVITIES (BREEDING, AGRONOMY, ENTOMOLOGY, FARMING SYSTEMS RESEARCH) SUPPORTED BY THE PROJECT.

- EVALUATE THE COST-EFFECTIVENESS OF SAFGRAD AS A RESEARCH COORDINATING MECHANISM RELATIVE TO THE ESTABLISHMENT OF OTHER REGIONAL RESEARCH INSTITUTIONS SUCH AS INSTITUTE DU SAHEL AND THE SADCC EFFORT AND TO

THE IMPROVEMENTS IN NATIONAL RESEARCH PROGRAMS SINCE THE INCEPTION OF THE SAFGRAD PROJECT.

- GIVEN THAT PRICES AND OTHER ECONOMIC POLICY RELATIVES AFFECT THE RATE OF ADOPTION AND APPROPRIATENESS OF NEW TECHNOLOGIE.. IDENTIFY WAYS BY WHICH OTHER INTERNATIONAL RESEARCH ORGANIZATIONS SUCH AS THE INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE CAN CONTRIBUTE TO THE DEVELOPMENT OF THE SAFGRAD RESEARCH AGENDA AND IMPROVE ITS EFFECTIVENESS AS A RESEARCH COORDINATING BODY.

- BASED ON 1 THROUGH 4 ABOVE, MAKE RECOMMENDATIONS WHICH SHOULD RECEIVE EMPHASIS AND BE CONSIDERED IN ANY PHASE II SAFGRAD EFFORTS.

ADDITIONS AND POSSIBLE DELETIONS MAY BE MADE TO THE SOWS AS THE NEED ARISES. THESE SOWS SHOULD GIVE EVALUATION TEAM MEMBERS MORE SPECIFIC GUIDANCE AS TO THEIR INDIVIDUAL ASSIGNMENTS. IT WAS DECIDED THAT DR. S. BEKURE COULD SERVE AS AGRICULTURAL ECONOMIST.

2. THE SCHEDULING OF THE EVALUATION REMAINS AS DISCUSSED WITH R. GRAY DURING HIS VISIT THE WEEK OF JANUARY 9, 1984. IF CHANGES HAVE COME ABOUT SINCE THEN, PLEASE ADVISE USAID/UPPER VOLTA. MITCHELL AND TAYLOR ARE SCHEDULED TO TRAVEL TO LAGOS, IITA AT IBADAN AND SAMARU ON/ABOUT FEBRUARY 1. SIMMONS WILL JOIN THEM AT IITA ON/ABOUT FEB. 3. PLEASE ADVISE USAID/UPPER VOLTA OF EXACT TIMING OF TRIPS SO THAT SIMMONS CAN MAKE THE NECESSARY TRAVEL PLANS.

3. IT IS NOT POSSIBLE FOR BLOOM TO OBTAIN CAMEROONIAN VISA IN OUAGADOUGOU OR ABIDJAN. THUS, HIS TRAVEL TO CAMEROON IS UNLIKELY. USAID/UPPER VOLTA SUGGESTS THAT MCKENNA OBTAIN A CAMEROONIAN VISA AND FURTHER TRAVEL TO CAMEROON TO EVALUATE ACPO PROGRAM CAN BE DISCUSSED DURING FIRST WEEK OF EVALUATION. MCKENNA AND BLOOM TRAVEL TO SENEGAL ON/ABOUT FEBRUARY 15 AND MALI ON/ABOUT FEBRUARY 20 STILL IS PLANNED. FROLIK TRAVEL TO BAMAKO ALSO PLANNED.

4. POIRIER ETA OUAGADOUGOU FEBRUARY 10.

5. GRAY AND FROLIK TRAVEL TO NAIROBI TO EVALUATE ICRISAT REGIONAL MILLET AND SORGHUM PROGRAM PLANNED FOR ON/ABOUT FEBRUARY 14, 1984. BEKURE TO JOIN THEM IN NAIROBI.

6. LOGISTIC SUPPORT FOR EVALUATION TEAM IS TENTATIVELY ESTABLISHED. THE TEAM WILL STAY A THE HOTEL SILMANDE. A LARGE SUITE HAS ALSO BEEN RESERVED AT SILMANDE TO SERVE AS EVALUATION TEAM HEADQUARTERS. TWO CARS WILL BE RENTED. AN ADMINISTRATIVE ASSISTANT AND A SECRETARY HAVE BEEN IDENTIFIED. BE ADVISED THAT THE TEAM LEADER WILL BE RESPONSIBLE FOR HANDLING THE PAYMENT OF THIS SUPPORT. USAID/UPPER VOLTA HAS NOTIFIED OUA/STRC, IITA, ICRISAT AND PURDUE REPRESENTATIVES TO BE AVAILABLE FOR THE NECESSARY MEETINGS AND TO MAKE AVAILABLE DOCUMENTS FOR THE TEAMS REVIEW.

7. PLEASE ADVISE EXACT ETAS OR ANY CHANGES IN SCHEDULE. WALKER UNQUOTE. SHULTZ

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OUTGOING TELEGRAM

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STFA-01 RELO-01 MAST-01 022 A5 310

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INFO OCT-00 /020 R

DRAFTED BY S&T/AGR/EPP:JALBERT JLH
APPROVED BY AID:S&T/AGR ARBERTRAND
AID/S&T/AGR/EPP:PCHURCH
AID/S&T/AGR/EPP:WMORSE
AFR/RA:RGRAY (PHONE)

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P 100046Z FEB 84
FM SECSTATE WASHDC
TO AMEMBASSY OUAGADOUGOU PRIORITY

UNCLAS STATE 039982

ADM AID

E.O. 12356:N/A
TAGS:
SUBJECT: SAFGRAD EVALUATION

JOCELYNE ALBERT ETA FEB. 10 AT 17:30 ON RK 029. PLEASE RE-SERVE SWB AT SILMANDE. APOLOGIZE FOR DELAY. SHULTZ

UNCLASSIFIED

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# Department of State

OUTGOING TELEGRAM

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INFO OCT-00 AF-00 /035 R

DRAFTED BY AID/AFR/RA: REGRAY: JD
APPROVED BY AID/AFR/RA: WHNAYLOR, JR.
AID/AFR/RA: JSLATTERY (INFO)
AID/AFR/TR/ARD: PLIPPOLD (INFO)
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FM SECSTATE WASHDC
TO AMEMBASSY YAOUNDE PRIORITY
AMEMBASSY OUAGADOUGOU PRIORITY

UNCLAS STATE 031438

ATDAC

E.O. 12356 N/A
TAGS:
SUBJECT: SAFGRAD EVALUATION

REF: (A) OUAGADOUGOU 676
- (B) TELECON GRAY/BECKER 2/1/84

1. ALBERT WILL NOT BE JOINING MC KENNA FOR CAMEROON SEGMENT OF SAFGRAD EVALUATION. INSTEAD WILL TRAVEL DIRECTLY TO OUAGADOUGOU FROM WASHINGTON ARRIVING THERE O/A FEBRUARY 10. WILL ADVISE USAID/OUAGADOUGOU WHEN FIRM ETA AVAILABLE.

2. APPRECIATE USAID/YAOUNDE ASSISTANCE FOR MC KENNA. DAM



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Department of State Gray OUTGOING TELEGRAM

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ORIGIN AID-00

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RELO-01 MAST-01 /023 A4 328

INFO OCT-00 AF-00 /035 R

DRAFTED BY USDA/OICD/TAD: P. KOFFSKY:MCH
APPROVED BY USDA/OICD/TAD: W. S. HOOFNAGLE
AID/CM/SOD: J. ROEN (INFO)
AID/AFR/RA: R. GRAY (PHONE)
243552 280527Z /38

P 280003Z JAN 84
FM SECSTATE WASHDC
TO AMEMBASSY OUAGADOUGOU PRIORITY

UNCLAS STATE 026560

AIDAC

E.O. 12356: N/A
TAGS:
SUBJECT: PLANNING FOR SAFGRAD EVALUATION

REF: OUAGADOUGOU 434

1. AS NOTED REFTEL, PARA 3, TEAM LEADER MITCHELL MAY BE FACED WITH "RUSH" SITUATION AT END OF SCHEDULED-TIME IN-OUAGADOUGOU. --

2. MITCHELL CONTRACT INCLUDES AUTHORIZATION TO EXPEND UP TO 2,500 DOLS FOR MISCELLANEOUS AND SECRETARIAL SERVICES, IN AN EFFORT TO EXPEDITE MECHNICAL PROCESSING OF THE REPORT. USDA WOULD SUGGEST THAT MISSION ADVANCE FUNDS TO MITCHELL FOR THIS PURPOSE, IF HE HAS NEED OF THIS FOR IMMEDIATE--- PAYMENTS. PLEASE ADVISE. SHULTZ



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OUTGOING TELEGRAM

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INFO OCT-00 AF-00 /035 R

DRAFTED BY AID/AFR/RA:REGRAY:JD
APPROVED BY AID/AFR/RA:WHNAYLOR, JR.
AID/AFR/SWAP:WSAULTERS (INFO)
AID/ST/AGR:JALBERT (DRAFT)
AID/ST/AGR:WMORSE (DRAFT)
AID/ST/AGR:PCHURCH (DRAFT)
AID/AFR/RA:JSLATTERY

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P 280551Z JAN 84
FM SECSTATE WASHDC
TO AMEMBASSY OUAGADOUGOU PRIORITY

UNCLAS STATE 026788

AIDAC

E.O. 12356: N/A
TAGS:
SUBJECT: SAFGRAD EVALUATION

REF: GRAY/BECKER DISCUSSION JANUARY 27, 1984

1. AS PER REFCON, GRAY CONFIRMS AVAILABILITY OF ST/AGR SOCIAL SCIENTIST, JOCELYNE ALBERT, TO PARTICIPATE ON SUBJECT EVALUATION FEBRUARY 3-24, SUBJECT TO FUNDING OF TRAVEL AND PER DIEM THROUGH EVALUATION PASA WITH USDA.

2. GRAY AND MITCHELL PROPOSE THE FOLLOWING SOW FOR ALBERT TO EXAMINE SOCIO-ECONOMIC ISSUES OF FARMER AND HOUSEHOLD PARTICIPATION IN THE DESIGN AND EXECUTION OF ON-FARM TRIALS:

- A. ASSESS METHODOLOGY USED IN FARMER AND TECHNOLOGY SELECTION FOR ON-FARM TRIALS AND RATES OF TECHNOLOGY ADOPTION; AND

- B. EXAMINE THE LINKAGES BETWEEN THE NATIONAL AND REGIONAL S/FGRAD PROGRAMS AND ASSESS THE IMPACT OF THE FARMING-SYSTEMS APPROACH (ON-FARM TRIALS) ON THE NATIONAL PROGRAMS.

3. IF MISSION CONCURS, ALBERT WILL JOIN THE TEAM IN CAMEROON, WILL ACCOMPANY THEM TO SENEGAL THEN RETURN TO UPPER VOLTA FOR WRITE-UP. ABOVE ANALYSIS SHOULD COMPARE ON-FARM TRIALS IN CAMEROON, SENEGAL, AND IF POSSIBLE, UPPER VOLTA.

4. PLEASE RESPOND IMMEDIATE AND GIVE SCHEDULE OF TEAM MEMBERS GOING TO CAMEROON SO THAT ALBERT CAN JOIN THEM FEBRUARY 4. SHULTZ

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DRAFTED BY AID/AFR/RA: REGRAY: HSA
APPROVED BY AID/AFR/RA: WHNAYLOR, JR.
AID/AFR/RA: WSHERWIN
AID/AFR/SWA: WSAULTERS (PHONE)
AID/AFR/RA: JSLATTERY (INFO)
AID/AFR/TR/ARD: PLIPPOLD (INFO)
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FM SECSTATE WASHDC
TO AMEMBASSY OUAGADOUGOU PRIORITY

UNCLAS STATE 310964

AIDAC

E.O. 12356 N/A
TAGS:
SUBJECT: SAFGRAD 698-0393 USAID CLEARANCE FOR GRAY AND THOMAS

REF: OUAGADOUGOU 6246

1. USAID CLEARANCE REQUESTED FOR ROBERT GRAY, AFR/RA, TO TRAVEL TO UPPER VOLTA TO ATTEND SAFGRAD CONSULTATIVE COMMITTEE MEETINGS AND TO DISCUSS OTHER SAFGRAD ISSUES.

2. GRAY ETA SATURDAY NOVEMBER 5 VIA RK 37 FROM PARIS. ETD EVENING OF NOVEMBER 11. PLEASE RESERVE SINGLE AT HOTEL SILIMANDE.

3. GRAY BRINGING PRELIMINARY SCOPE OF WORK FOR EVALUATION TO BE DISCUSSED AT CONSULTATIVE MEETING AND WITH USAID. CONTENTS BEING CABLED.

4. USAID CLEARANCE ALSO REQUESTED FOR DR. D. WOODS THOMAS OF PURDUE TO ATTEND CONSULTATIVE MEETINGS AND TO REVIEW PURDUE PROGRAM. PROFESSOR A.O. WILLIAMS AND DR. J. MENYONGA EXTENDED INVITATION TO THOMAS TO ATTEND CONSULTATIVE MEETINGS. THOMAS ETA SATURDAY, NOVEMBER 5 VIA RK 37 FROM PARIS. ETD. NOVEMBER 12. SHULTZ

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ORIGIN AID-35

ORIGIN OFFICE AFRA-03
INFO AFPW-04 NEPD-04 AFDR-06 INDP-02 NENA-03 AFDA-01 AGRI-01
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INFO OCT-00 AGRE-06 /035
DRAFTED BY AID/AFR/RA:REGRAY:JO
APPROVED BY AID/AFR/RA:DFMILLER
AID/AFR/RA:EEBUTLER
USDA/OICD:JHYSLOP (INFO)
AID/AFR/SWA:WSAULTERS (INFO)
AID/AFR/DR/ARD:WJUDY (INFO)
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FM SECSTATE WASHDC
TO AMEMBASSY OUAGADOUGOU PRIORITY
INFO AMEMBASSY RABAT PRIORITY

UNCLAS STATE 250873

AIDAC: RABT ATTN: A MCSWAIN

E.O. 12065: N/A

TAGS:
SUBJECT: SAFGRAD 698-0393 DRAFT EVALUATION REPORT

REF: A) STATE 8571; B) OUAGADOUGOU 4864; C) RABT 6651

1. RESPONSES TO EXECUTIVE SUMMARY RECEIVED AND APPRECIATED.

2. RESPONSES TO OVERALL DRAFT REPORT REQUESTED AS SOON AS POSSIBLE - EITHER BY CABLE OR BY HAND DELIVERY - SO THAT EVALUATION CAN BE FINALIZED.

3. PLEASE GIVE DATE POUCHED IF RESPONSES HAVE ALREADY BEEN SENT. HAIG

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OUTGOING TELEGRAM



ORIGIN OFFICE AFRA-03
INFO AFFV-04 AFDR-06 FVA-02 NEMA-03 PPCE-01 PDPR-01 PPPB-03
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DRAFTED BY AID/AFR/RA:REGRAY:JO
APPROVED BY AID/AFR/RA:DFMILLER
AID/AFR/RA:EGRUOFF
AID/AFR/SWA:WSAULTERS
AID/AFR/DR/ARD:WJUDY (INFO)

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P 180538Z AUG 81
FM SECSTATE WASHDC
TO AMEMBASSY OUAGADOUGOU PRIORITY
AMEMBASSY RABAT PRIORITY

UNCLAS STATE 219038

AIDAC: RABAT - ATTN: A MCSWAIN

E.O. 12065: N/A

TAGS:

SUBJECT: SAFGRAD 696-0393 DRAFT EVALUATION REPORT

1. AFR/RA POUCHING DRAFT COPIES FOR USAID, SAFGRAD AND MCSWAIN REVIEW. BELIEVE COMMENTS ON COMMISSIONED EVALUATION SHOULD BE LIMITED PRIMARILY TO ERRORS OF FACT, FAULTY CONCLUSIONS BASED ON ERRONEOUS FACTS, AND BREACHES OF PROTOCOL. POINTS REQUIRING CLARIFICATION, EXPLANATION, OR WORDING CHANGES COULD ALSO BE WELCOME. CABLE RESPONSES TO EXECUTIVE SUMMARY REQUESTED BY AUGUST 26. POUCHED OR CABLED RESPONSES TO OVERALL REPORT REQUESTED BY SEPTEMBER 8. ADDITIONAL COPIES OF DRAFT WILL ALSO BE HANDCARRIED TO OUAGADOUGOU BY HUGHES.

2. USES OF EVALUATION - A) FINAL REPORT, WHICH SHOULD BE AVAILABLE BY MID/LATE SEPTEMBER, WILL BE USED BY AID/W, USAID, SAFGRAD AND CONTRACTORS TO HELP DEVELOP MODIFIED COURSE OF ACTION, AS NEEDED, FOR REMAINDER OF PRESENT SAFGRAD PROJECT AND ANY FOLLOW-ON ACTIVITY. GRAY TO ATTEND CONSULTATIVE COMMITTEE (CC) MEETING IN OUAGADOUGOU 10/14-15 AND WILL PLAN TO ARRIVE AT LEAST ONE WEEK PRIOR TO CC MEETING SO THAT AGREED AID/SAFGRAD/CONTRACTOR POSITION CAN BE DEVELOPED IN SO FAR AS POSSIBLE AT THAT TIME. B) AFR/RA BELIEVES THAT MANY OF THE MAJOR RECOMMENDATIONS OF REPORT

SHOULD BE ITEMS FOR DISCUSSION AT THE CC MEETING. THESE PARTICULARLY INVOLVE RECOMMENDATIONS OF A POLICY NATURE-OF WHICH THERE ARE SEVERAL. ONE OPTION FOR PRESENTATION TO THE CC WOULD BE TO HAVE EXECUTIVE SUMMARY OF REPORT (MODIFIED TO EXCLUDE ITEMS WHICH ARE EXCLUSIVELY OF US CONCERN) AVAILABLE IN BOTH FRENCH AND ENGLISH FOR DISCUSSION AND CONSIDERATION OF THE CC MEETING. COMPLETE COPIES OF THE EVALUATION REPORT WOULD BE AVAILABLE (POSSIBLY ONLY IN ENGLISH AT THAT TIME) FOR CC MEMBERS WHO REQUEST THEM. USAID/SAFGRAD SUGGESTIONS ON THIS OR ALTERNATIVE APPROACH FOR PRESENTATION OF EVALUATION TEAM'S RECOMMENDATIONS TO CC ARE REQUESTED.

FOR INFORMATION AND PLANNING PURPOSES, USAID REQUESTED TO CABLE NAMES, INSTITUTIONS, AND NUMBERS OF INVITEES TO CC MEETING.

3. FOLLOWING IS SUMMARY OF EVALUATION TEAM PRINCIPAL



RECOMMENDATIONS:

--A) PROJECT IMPLEMENTATION AND ORIENTATION

8-18

--FOR THE MOST PART, PROJECT IMPLEMENTATION HAS BEEN ON SCHEDULE. SAVE FOR THE AID-FINANCED ICRISAT TEAM AT SAMARU IN NIGERIA, STAFFING OF THE PROJECT WAS TIMELY, AND PERSONNEL OF THE VARIOUS AGENCIES BEGAN WORK IN A VIGOROUS AND PROFESSIONAL MANNER. THIS EFFORT IS CONTINUING.

--THE MAJOR IMPLEMENTATION WEAKNESS HAS BEEN THE FAILURE TO FULLY UTILIZE THE PROJECT'S POLICY AND GUIDANCE STRUCTURES. INACTIVITY ON THE PART OF THE CONSULTATIVE COMMITTEE (CC) AND TECHNICAL ADVISORY COMMITTEE (TAC) HAS CREATED A POLICY VACUUM WHICH HAS BEEN FILLED, IN PART, BY THE OAU/STRC COORDINATOR AND THE AID PROJECT OFFICER. BUT THEY NEITHER CAN NOR SHOULD TAKE OVER THE FUNCTIONS WHICH ARE PROPERLY THOSE OF THE TWO COMMITTEES.

-- THE MAJOR SUBSTANTIVE IMPACT OF THIS FAILURE HAS BEEN ON THE ORIENTATION OF THE PROJECT. THUS, WHILE MOST PROJECT EMPHASIS HAS BEEN PLACED ON REGIONAL LEVEL RESEARCH, LITTLE EFFORT HAS BEEN GIVEN TO THE OVERSIGHT OF THAT WORK IN TERMS OF ITS RELEVANCE TO SAFGRAD'S TARGET GROUP--THE SMALL FARMERS OF SUB-SAHARAN AFRICA.

-- FURTHER, A VITAL FUNCTION OF SAFGRAD LEADERSHIP HAS BEEN SERIOUSLY NEGLECTED: THE MARSHALLING OF EXISTING SAFGRAD RESOURCES, REPRESENTED BY THE RESEARCH AND

EXTENSION AGENCIES OF MEMBER COUNTRIES, FOR A COORDINATED RESEARCH AND DEVELOPMENT ATTACK ON THE PROBLEM OF INCREASING FOOD GRAIN PRODUCTION IN THE REGION.

-- RECOMMENDATIONS

-- RECOMMENDATION 1. SAFGRAD POLICY AND GUIDANCE FUNCTIONS SHOULD BE STRENGTHENED BY REVITALIZING THE CC AND TAC AND INSTITUTIONALIZING THEIR ROLES WITHIN THE PROJECT.

-- RECOMMENDATION 2. GREATER RELATIVE EMPHASIS SHOULD BE PLACED ON COORDINATION OF NATIONAL WITH REGIONAL LEVEL RESEARCH EFFORTS AND RELATIVELY LESS EMPHASIS PLACED ON DIRECT RESEARCH AT THE REGIONAL LEVEL.

-- RECOMMENDATION 3. ATTENTION SHOULD BE GIVEN TO THE PERMANENCE OF SAFGRAD. INSTITUTION BUILDING SHOULD BE MADE AN EXPLICIT PURPOSE OF THE PROJECT IN ORDER THAT REGIONAL LEVEL RESEARCH CENTERS AND REGIONAL RESEARCH NETWORKS DO NOT FALL APART WHEN AID SUPPORT IS REMOVED.

--B) PROJECT MANAGEMENT

--THOUGH POLICY AND PROGRAM GUIDANCE SHOULD PROPERLY COME FROM THE CC AND TAC, THE IMPLEMENTATION OF POLICY IS A FUNCTION OF THE SAFGRAD HEADQUARTERS STAFF AT OUAGADOUGOU: OAU/STRC COORDINATOR AND THE AID PROJECT OFFICER. GIVEN THE COMPLEXITY OF THE PROJECT, THE DEMANDS OF DAY TO DAY ADMINISTRATIVE BURDENS, AND THE ABSENCE OF POLICY GUIDANCE FROM ABOVE, THESE TWO OFFICERS HAVE BEEN DOING A REMARKABLY GOOD JOB.

-- RECOMMENDATION 4. OAU SHOULD BE MORE ACTIVE IN PURSUING DONOR SUPPORT FOR SAFGRAD.

-- RECOMMENDATION 5. CONSIDERATION SHOULD BE GIVEN TO EMPOWERING OAU/STRC AS THE CONTRACTING BODY FOR TECHNICAL ASSISTANCE ACTIVITIES.

--RECOMMENDATION 6. THE AUTONOMY OF THE OAU/STRC COORDINATOR IN OUAGADOUGOU WITH RESPECT TO OAU/STRC HEADQUARTERS IN LAGOS SHOULD BE MAINTAINED IN THE MAKING AND IMPLEMENTATION OF OPERATIONAL DECISIONS.

--RECOMMENDATION 7. THE OPERATIONS OF THE OUAGADOUGOU OFFICE SHOULD BE STRENGTHENED BY ADDING:

--1. A COORDINATOR OF RESEARCH TO BE RESPONSIBLE FOR THE

MANAGEMENT OF ALL TECHNICAL RESEARCH MATTERS.

--2. ONE OR TWO PERSONS TO THE STAFF OF THE OAU/STRC COORDINATOR SO THAT FISCAL MATTERS CAN BE PROFESSIONALLY HANDLED.

--3. AN AID EMPLOYEE WITH CERTAIN SIGNATORY POWERS BE ASSIGNED AS AN AIDE TO THE AID PROJECT OFFICER.

--C) REGIONAL LEVEL RESEARCH

-- SAFGRAD'S MAJOR EMPHASIS HAS BEEN ON VARIETAL DEVELOPMENT RESEARCH AT THE REGIONAL LEVEL. MOST PROGRESS HAS BEEN MADE ON MAIZE DEVELOPMENT BY IITA AT KAMBOINSE IN UPPER VOLTA. AID FUNDED WORK ON SORGHUM BY ICRISAT AT SAMARU, NIGERIA, HAS BEEN DELAYED DUE TO THE CONTRACTOR'S ADMINISTRATIVE AND FINANCIAL PROBLEMS IN STAFFING .

--THE USE OF NATIONAL RESEARCH STATIONS AS REGIONAL RESEARCH CENTERS IS CAUSING SOME PROBLEMS. AT KAMBOINSE, IITA AND ICRISAT DOMINATE RESEARCH ACTIVITIES, AND VOLTAIC OFFICIALS EXPRESSED CONCERN OVER THE LOSS OF CONTROL OF THEIR OWN RESEARCH PROGRAM. AT SAMARU THERE WAS SOME RESENTMENT EXPRESSED OVER THE PLACEMENT OF AID-FUNDED ICRISAT STAFF THERE. STATION OFFICIALS FELT THAT THIS STAFF HAD BEEN FORCED UPON THEM, AND DOING SO REFLECTED ON THE STATION'S EXISTING COMPETENCE.

-- RECOMMENDATION 8. OAU/STRC, WITHAID SUPPORT, SHOULD NEGOTIATE WITH THE OTHER DONORS AND THE IMPLEMENTING AGENCIES THEY FUND TO BRING THEM MORE CLOSELY INTO THE SAFGRAD FOLD AND ACHIEVE GREATER SAFGRAD AUTHORITY OVER THEIR RESEARCH ACTIVITIES.

--RECOMMENDATION 9. AID AND OAU/STRC SHOULD SERIOUSLY CONSIDER ESTABLISHING A REGIONAL RESEARCH CENTER OR CENTERS UNDER FULL SAFGRAD MANAGEMENT TO AVOID QUESTIONS OF NATIONAL SENSITIVITY.

--RECOMMENDATION 10. GREATER REGIONAL LEVEL EMPHASIS SHOULD BE PLACEDONSOIL AND WATER RESEARCH. BREEDING WORK SHOULD BE AIMED AT VARIETIES ADAPTED TO FARMERS' CURRENT MANAGEMENT AND LEVELS OF INPUT. GREATER COORDINATION WITH THE FARMING SYSTEMSUNIT WOULD BE HELPFUL IN THIS REGARD.

--D) THE FARMING SYSTEMS UNIT

-- MAJOR ISSUES FOR THE FSU ARE THE FOCUS OF ITS WORK

THROUGH THE REMAINING LIFE OF THE CURRENT SAFGRAD PROJECT AND THE DIRECTION IT SHOULD TAKE IN ANY FOLLOW-UP PROJECT. BEARING ON THESE ISSUES IS FSU'S RELATIONSHIP WITH THE OVERALL REGIONAL THRUST OF SAFGRAD AND USAID/UV'S PLANNED PARTICIPATION IN A VOLTAIC PROJECT WHICH IS INTENDED TO HAVE A FARMING SYSTEMS RESEARCH COMPONENT.

--RECOMMENDATION 11. FOR THE REMAINING LIFE OF THE



CURRENT SAFGRAD PROJECT THE FSU TEAM SHOULD CONCENTRATE ON THE ADAPTIVE FARM TRIALS COMPONENT OF ITS PROGRAM. ONLY THAT DATA SHOULD BE SAVED FROM THE EARLIER LARGE-SCALE SURVEY WORK WHICH CONTRIBUTES DIRECTLY TO THE AGRONOMIC TRIALS. SURVEYS SHOULD CONTINUE, BUT AT A LEVEL WHICH FOCUSES ON THE QUICK IDENTIFICATION OF MAJOR PRODUCTION CONSTRAINTS AND INTERVENTION OPPORTUNITIES. THIS ACTIVITY WILL FORM A GOOD EXPERIENTIAL BASE FOR THE FARMING SYSTEMS COMPONENT OF THE VOLTAIC PROJECT IN WHICH USAID/UV WILL BE PARTICIPATING.

--RECOMMENDATION 12. FOR THE FOLLOW-UP PROJECT, THE FSU SHOULD HAVE A REGIONAL, RATHER THAN NATIONAL, ORIENTATION. MAJOR ELEMENTS OF THAT ORIENTATION INCLUDE:

--1. REGIONAL NETWORKING AMONG NATIONAL FARMING SYSTEMS PROGRAMS, WITH EMPHASIS ON INTER-PROGRAM COMMUNICATIONS.

--2. ASSISTING REGIONAL LEVEL RESEARCH CENTERS IN SETTING RESEARCH PRIORITIES.

--3. ASSISTING SAFGRAD MEMBER NATIONS IN IMPLEMENTING FARMING SYSTEMS PROGRAMS AND INTEGRATING THEM WITH ONGOING RESEARCH AND EXTENSION OPERATIONS.

MANAGEMENT EFFICIENCY OF THE FSU'S REGIONAL ORIENTATION WOULD BE AIDED BY SPLITTING IT INTO TWO PORTIONS--ONE FOR WEST AFRICA AND ONE FOR EAST AFRICA.

--E) ACCELERATED CROP PRODUCTION OFFICERS

--THE ACCELERATED CROP PRODUCTION OFFICER (ACPO) WAS TO HAVE TWO ROLES IN THE COUNTRY TO WHICH HE IS ASSIGNED: (1) LIAISON BETWEEN NATIONAL AND REGIONAL LEVEL RESEARCH AND (2) LIAISON BETWEEN NATIONAL RESEARCH AND NATIONAL EXTENSION. IN THE FORMER CASE THIS HAS MEANT HIS BEING REPSONSIBLE FOR REGIONAL TRIALS OF VARIETIES AND TECHNOLOGIES COMING OUT OF THE REGIONAL LEVEL RESEARCH CENTERS.

--RECOMMENDATION 13. THE ACPO ROLE AS LIAISON BETWEEN NATIONAL RESEARCH AND NATIONAL EXTENSION SHOULD BE HIS ONLY MISSION. THE PERMANENT RESEARCH STAFF OF THE NATIONAL CENTERS SHOULD TAKE OVER RESPONSIBILITY FOR REGIONAL RESEARCH TRIALS.

--RECOMMENDATION 14. ACPOS SHOULDBE ASSIGNED TO NATIONAL FARMING SYSTEMS PROGRAMS IN ORDER TO PROVIDE " LEVERAGE" TO THE FARMING SYSTEMS' EXTENSION ACTIVITIES BEYOND THE IMMEDIATE GEOGRAPHIC AREAS IN WHICH THEY ARE WORKING. CLARK

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PPEA-01 CMGT-02 CTR-02 PASA-02 CH8-01 AFDA-01 RELO-01
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INFO OCT-00 /035 R

DRAFTED BY USDA/OICD/TA:P KOFFSKY:KMR
APPROVED BY USDA/OICD/TA:W S HOOFNAGLE
AID/CM/SOD:H ALEXANDER (PHONE)
AID/AFR:W SAULTERS (PHONE)
AID/AFR/SFWA:F JOHNSON (PHONE)

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INFO AMEMBASSY OUAGADOUGOU

UNCLAS STATE 129433

ADM AID

E.O. 12065: N/A

TAGS:

SUBJECT: TRAVEL SAFGRAD EVALUATION TEAM

USDA TEAM IN WEST AFRICA 18 MAY - 18 JUN TO EVALUATE SAF-
GRAD PROJ. MGMT SPEC HERB HUGHES NOW SCHEDULED VISIT
ICRISAT SENEGAL O/A 1-4 JUN. WILL CONFIRM FROM OUAGA. HAIG

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CH8-01 AFDA-01 RELO-01 ?GRI-01 7L-00 /025 A0

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INFO OCT-00 /035 R

DRAFTED BY AID/CM/SOD/IIA: HIALEXANDER: AD
APPROVED BY AID/CM/SOD/IIA: JWAUER
AID/AFR: WSAULTERS (INFO)
AID/AFR/RA; RGRAY (SUBS)
USDA/OICD: PKOFFSKY (INFO)
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P 152308Z MAY 81
FM SECSTATE WASHDC
TO AMEMBASSY OUAGADOUGOU PRIORITY

UNCLAS STATE 127374

ADM AID

E.O. 12065: N/A

TAGS:

SUBJECT: PASA AFR-0393-P-AG-1059-00 - SEMI-ARID FOOD
-- GRAIN RESEARCH AND DEVELOPMENT (698-0393)

REF: STATE 119102

TOTAL COST PASA 59,365 DOLS, LEAVING 20,635 DOLS FOR DIRECT USAID DISBURSEMENT FOR FAKAMBI CONTRACT AND IN-COUNTRY TRAVEL, FOR PASA TEAM AND FAKAMBI - ADDITIONAL IN-COUNTRY AIR FARE, CAR RENTAL, ETC.

CHARGE APPROP: 72-1101021.3; ALLOTMENT 043-54-686-00-69-13
PIO/T 698-0393-2-00047. HAIG



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