

PROJECT DATA SHEET

AGENCY FOR INTERNATIONAL DEVELOPMENT

1. TRANSACTION CODE Amendment Number
 A = Add
 B = Change
 C = Delete

DOCUMENT CODE 3

2. COUNTRY/ENTITY
AFRICA REGIONAL

3. PROJECT NUMBER
598-0452

4. BUREAU/OFFICE
AFR 06

5. PROJECT TITLE (maximum 40 characters)
Semi Arid Food Grains Research & Dev. II

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)
MM DD YY
06 30 91

7. ESTIMATED DATE OF OBLIGATION
(Under "R" below, enter 1, 2, 3, or 4)
A. Initial FY 86 B. Quarter 4 C. Final FY 90

8. COSTS (\$000 OR EQUIVALENT \$1 =)

A. FUNDING SOURCE	FIRST FY 86			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	3,353	-	3,353	9,800	-	9,800
(Grant)	(3,353)	(-)	(3,353)	(9,800)	(-)	(9,800)
(Loan)	()	()	()	()	()	()
Other U.S.						
Host Country	-	360	360	-	1,800	1,800
Other Donor(s)	1,100	-	1,100	5,500	-	5,500
TOTALS	4,453	360	4,813	15,300	1,800	17,100

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) FN	100	960		9,800	-	9,800	-	9,300	-
(2)									
(3)									
(4)									
TOTALS				9,800		9,800		9,800	-

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)
075

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)
A. Code R/AC
B. Amount 9,800

13. PROJECT PURPOSE (maximum 480 characters)

To increase the efficiency and effectiveness of agricultural research on identified staple food crops in the SAFCRAD region by strengthening commodity specific research networks and the service capacity of regional and national research institutions.

14. SCHEDULED EVALUATIONS
Interim MM YY 05 88 Final MM YY 01 90

15. SOURCE/ORIGIN OF GOODS AND SERVICES
 000 941 Local Other (Specify) 935

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page FP Amendment)

17. APPROVED BY
Signature: Keith W. Sherper
Title: Director, AFR/TR
Date Signed: MM DD YY 06 02 86

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
MM DD YY 06 02 86

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

19 AUG 1986

ACTION MEMORANDUM FOR THE ACTING ASSISTANT ADMINISTRATOR FOR AFRICA

THRU: AFR/PD, Laurence Hausman *C. Penley*

FROM: AFR/TR, Keith W. Sherper *KS*

Problem: Your approval is requested for a grant of \$9,800,000 for the Semi-Arid Food Grains Research and Development (SAFGRAD) Phase II Project (698-0452). A total of \$3,353,000 is planned for obligation during FY 86.

Background: This project is a follow-on to the SAFGRAD I project (698-0393) which was implemented between 1977-1986. The purpose of SAFGRAD I was to develop improved basic food crop varieties (sorghum, millet, maize and cowpeas) and improved cultivation practices which could be used by small farmers in semi-arid areas. The project combined the expertise of two International Agricultural Research Centers (IARCs) - The International Institute for Tropical Agriculture (IITA) and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) for assistance in varietal and agronomic research, Purdue University for farming systems research and the cooperative efforts of 26 participating African countries to conduct coordinated agricultural research. The Organization of African Unity's Scientific, Technical and Research Commission (OAU/STRC) served as coordinator and facilitator of the SAFGRAD I project.

Major contributions of SAFGRAD I were the testing and screening of exotic and indigenous germplasm, training of 28 scientists at the graduate level and the establishment of commodity research networks among cooperating countries for the four SAFGRAD crops. Among the important lessons learned from SAFGRAD I, which have been taken into account in the formulation of SAFGRAD Phase II, are: (a) a regionally oriented networking activity can help participating countries to develop and strengthen the capabilities of their scientists and through National Agricultural Research Systems (NARS) to share research findings from all appropriate sources; (b) the complexity of the project, its many objectives and the large number of implementors restricted to some extent the degree to which it was able to achieve many of its stated goals, (c) the development of African leadership at the national level to guide and direct inter-country cooperative research efforts is a long-term process and has yet to emerge; and d) AID project management was unnecessarily complicated by the split of responsibilities between AID/W and USAID/Burkina.

Discussion: ECPR Results - The ECPR meeting on June 27, 1986, recommended that a SAFGRAD II project with a scope reduced from that presented in the PP be approved. The SAFGRAD II project now

recommended for approval has the following characteristics: (a) five years of funding for the four research networks to be coordinated and supported by IITA and ICRISAT, (b) one year of funding for the on-going IITA and ICRISAT resident research, the implication being that resident research by international centers should be funded from their core support or by other donors, (c) funding for the Burkina and Mali ACPOs to complete one additional cropping season, (d) two years of funding, at a substantively reduced level, for the SAFGRAD Coordination Office and (e) technical assistance consisting of technical support to the networks, short term assistance to the SCO and overall project management. The ECPR expressed concern over the pace of development of African leadership for networking and the limited results of the SAFGRAD Coordinating Office in its effort to both foster such leadership and generate support for national research programs. It recommended that AID should begin work immediately with other donors (including the World Bank) and the IARCs to identify African led alternatives to the OAU/STRC/SCO that would facilitate achievement of this project purpose. The ECPR concluded that networking and associated support functions were in line with our Agency Agricultural Research Plan, but that other project components should be phased out as expeditiously as possible.

The Project Paper attached is adjusted to reflect changes agreed upon at the ECPR and described in this Action Memo.

Project Description: The project purpose is to increase the efficiency and effectiveness of agricultural research on identified staple food crops (sorghum, millet, maize and cowpeas) in the SAFGRAD region by strengthening specific agricultural research networks for these food crops and to improve the service capability of regional and national research institutions to assist with these efforts.

The scope of SAFGRAD II is narrowed from that of its predecessor and will consist of the following elements:

- Support of Collaborative Agricultural Research Networks for sorghum, millet, maize and cowpeas - Support for networking, as the centerpiece for SAFGRAD II, will focuss on sorghum in West Africa, sorghum and millet in East Africa, and maize and cowpeas starting in West and Central Africa. IITA will provide full-time network coordinators over the five years of the project for the maize and the cowpea collaborative research networks. ICRISAT will provide the coordinators for the sorghum/millet network in East Africa and the West Africa sorghum network. The project will also provide IITA and ICRISAT the means to: conduct network

meetings and monitoring visits; increase communication, especially in terms of preparation and circulation of research findings; and facilitate emergence of leadership by scientists and administrators from the National Agricultural Research Systems (NARS).

- Resident Crop Research in Burkina Faso by IITA and ICRISAT on the four basic food crops will be supported for one year. This work will be continued with support from other sources following year one.
- Support of the OAU/STRC's SAFGRAD Coordination Office (SCO) for two years will be focused on facilitating the NARSs' participation in networking and obtaining support for national agricultural research programs. The SCO staff will be cut back to the minimum essential level to support the Coordinator and the Director of Research (IFAD funded), i.e., the controller (IFAD funded), the accountant and support staff.
- Support of Accelerated Crop Production Officers (ACPOs) in Mali and Burkina Faso will be continued for one cropping season. In those cases where ACPOs have proven useful to national programs, efforts will be made to seek continued funding from bilateral programs and other donors.

Two major evaluations are planned for SAFGRAD II. The first, at the end of year 2, will focus on whether efforts to develop African leadership at the national system level have been successful. The second evaluation, at the end of year 4 or at the beginning of year 5, will assess project results.

AID's project management for SAFGRAD II will be fully delegated to USAID/Burkina. In the exercise of its responsibilities, USAID/Burkina will obtain the services of a senior agricultural research officer under a PASA arrangement or contract. In addition, a locally hired accountant will be required by USAID/Burkina for years 1 and 2.

One of the objectives of this project is to develop a simple but effective SAFGRAD oversight and policy determination body made up of national scientists and administrators who are committed to networking objectives. The five person Oversight Committee will be supported for the five year life of the project.

Conformance to AID Strategy: The elements proposed in this project is fully consistent with AID's "Plan for Supporting Agriculture Research and Faculties of Agriculture in Africa". The

project will encourage use of the Collaborative Research Support Programs (CRSPs) and directly managed centrally funded projects in the strengthening of national systems as well as increasing the effective use of scarce research resources.

Following on the Bonn Economic Summit of May 1985, a multi-donor effort (including AID), "The Special Program for African Agricultural Research (SPAAR)", was mounted by the World Bank to coordinate donor support for research in Africa. Work under the Cooperation for Development in Africa (CDA) also supports coordination of bilateral donors, including the U.S. This project is fully consistent with and supportive of these efforts. A critical concern in moving forward with SAFGRAD II is encouragement of other donor support for national agricultural research and for networking. The first two years of the project will accent efforts to encourage such support, and an assessment of the results of these efforts will be a critical aspect of the major evaluation at the end of the second year.

Beneficiaries of the Project: The immediate beneficiaries will be national agricultural research scientists and programs whose capabilities and performance will be enhanced through collaborative networking with other national and international scientists. The ultimate beneficiaries will be farmers and their families whose productive capacities and standards of living will be improved.

Summary of U.S. Inputs

	<u>US 1st Year(\$)</u>	<u>US LOP(\$)</u>
<u>Research Network Support</u>		
Sorghum/millet(ICRISAT)	534,100	2,792,201
Maize/cowpeas(IITA)	609,250	3,188,610
<u>Resident Research</u>		
Sorghum/millet (ICRISAT)	332,540	332,540
Maize/cowpeas(IITA)	889,190	889,190
<u>SAFGRAD Coordination Office(SCO)</u>	446,288	735,781
<u>Accelerated Crop Production Officers (ACPOs)</u>	275,000	350,000
<u>Project Management</u>	230,000	<u>1,230,000</u>
<u>SUBTOTAL</u>	3,316,348	9,518,322
<u>Inflation and Contingency</u>	<u>36,652</u>	<u>281,550</u>
TOTALS (rounded)	3,353,000	9,800,000

Host Country and Other Donor Contributions:

The 26 participating SAFGRAD countries contribute to the support of the project by providing (a) research station facilities, salaries, research operational costs, offices and maintenance, and administrative support for research; (b) facilities for the Coordinating Office; and (c) staff time and other costs related to collaborative research networks (workshops, monitoring tours, Advisory Committee meetings for networks and training sessions) - \$1,800,000.

The International Fund for Agricultural Research (IFAD) currently contributes \$1,000,000 per year for Farming Systems Research conducted as part of the SAFGRAD project and support of over one-third of the SAFGRAD Coordinating Office staff. The French Government (Fonds d'assistance et de Cooperation) contributes approximately \$100,000 per year for one ACPO. - \$500,000.

The Special Program on African Agricultural Research (SPAAR) is a promising forum through which to seek additional support for research activities.

Socio-Economic Analysis Results:

The social and economic analyses conclude that the achievement of the SAFGRAD II project purpose will lead to improved economic and social conditions among the target groups.

Technical Analysis

On the basis of the discussion contained in the Project Paper and subsequent review, the project has been found to be technically sound and to meet all applicable A.I.D. criteria in that regard. Implementation arrangements have been reviewed and found to be realistic, including provision for project management.

Environmental Analysis:

An Initial Environmental Examination (IEE) for this project signed June 24, 1985 concluded that an Environmental Assessment must be done for the Outreach Support portion of the project. During the course of the development of the project paper, a full Environmental Assessment was prepared by Dr. George A Schafers of Cornell University. The Environmental Assessment has been approved by the Africa Bureau and is available at USAID/Burkina Faso. No further analyses are necessary.

Gray Amendment Considerations: The project will involve non-competitive grants to two IARCs and to OAU/STRC. Technical services will be provided to improve performance within SCO and for project management. If institutional contracts are used, Gray amendment entities will be given full consideration.

Method of Financing: Three separate grants will be issued:

- a) A grant to IITA for an estimated total of \$4,078,520.
- b) A grant to ICRISAT for an estimated LOP amount of \$3,124,741

*These direct grants will be negotiated by REDSO/WCA and will finance one year of resident research and five years of networking activities as described in the PP. These grants are continuations of already established activities.

c) A two year grant to the OAU/STRC Executive Secretariat in Lagos, Nigeria for a total of approximately 735,800 will be written by REDSO/WCA to fund support costs of the SCO. USAID/B will approve all reimbursement vouchers.

d) USAID/Burkina will issue the PIO/Ts for technical assistance, for evaluations and management meetings. Total LOP funds for these activities are estimated at \$1,230,000.

e) ACPOs are funded through the SCO grant. This is a continuation of Agreement signed under SAFGRAD I and will fund 2 ACPO's for one cropping season for a total of \$350,000.

Human Rights Considerations: Clearance to proceed with Authorization was received from the Bureau for Human Rights and Humanitarian Affairs on August 6, 1986.

Waiver: A source and origin waiver for the procurement of non-U.S. manufactured vehicles is included in the Project Authorization. Justification for this waiver is set forth in the PP annex.

Legal Arrangements, Conditions Precedent and Covenants: There will be three grant instruments: one with each of the IARCs, one with OAU/STRC. To avoid a break in project activities, funding for the first twelve months will be made available as soon as the minimum legal conditions are met. The agreement with OAU/STRC will be for the two years only, those with the IARCs for five years.

Before disbursement of funds for the second year of the project OAU/STRC must provide the following:

1. Evidence that the Executive Secretary in Lagos has delegated to the SCO Coordinator in Ouagadougou the authority essential for financial management of SAFGRAD II; and
2. Evidence that an accounting system satisfactory to A.I.D. has been established or that satisfactory progress has been made toward that end in a manner acceptable to AID.

A critical evaluation will occur at the end of the second year of the project. It will have several objectives: (1) to review progress in attracting national agriculture system research leaders to take leadership of the Oversight Committee and that the Oversight Committee is functioning as the policy, technical and operational decision making body for networking funded by SAFGRAD; (2) to determine whether the research networks are operational with NARSs representatives assuming a leadership role (which meets benchmarks to be established by AID in implementation letter after consultation with the networks coordinators); (3) to ascertain whether the IARCs are meeting performance targets which will be agreed upon between AID and the IARCs and specified in project implementation documents; (4) to appraise the performance of OAU/STRC/SCO and other concomitant efforts to promote African leadership in networking; and (5) to review progress in obtaining other donor support for National operational research and for networking.

For each of the IARC grants, as a condition precedent to disbursement of funds following the second year of the project the following must be made, be submitted to A.I.D., in form and substance satisfactory to AID:

A response giving evidence that the evaluation has been reviewed by the IARC; that performance of the IARC has substantively met benchmarks established in the grant agreement or set by implementation letter; and further that the IARC has taken into account recommendations made in the evaluation and has made adjustments so that the scope of work of IARC may be performed in a manner satisfactory to AID.

Committee Action and Congressional Notification:

The ECPR which met on June 27, 1986 recommended, that the project be approved at a further reduced scale, that SAFGRAD I be extended for 90 days and that an analysis of options for facilitating emergence of African leadership be undertaken as a priority. The project is identified on page 583 of the Africa Bureau FY 86

Congressional Presentation. The Congressional Notification was submitted on July 24, 1986 and expired on August 8, 1986.

Recommendation: That you authorize the Semi-arid Food Grains Research and Development (SAFGRAD) Phase II project, number 698-0452, by signing the attached project authorization.

Attachments:

- a] Project Authorization
- b] SAFGRAD Phase II Project Paper
- c] Project Paper Annexes

Clearance:

AFR/TR/PRO:WSherwin W
AFR/TR:CMartin CM
AFR/TR:MWinter (draft)
AFR/PD/CCWAP:HHelman (draft)
AFR/DP:CReeves (draft)
AFR/CONT:TRattan (draft)
GC/AFR:BBryant B *
SER/OP/AFR:SDean (phone)

AFR/TR/PRO:RGray:mhc:6736Y:8/07/86

* Cleared subject the following understanding. As used in the action memorandum project paper, the terms denoting "grant" or "grantee" should be read, when appropriate, to mean "cooperative agreement" or "recipient." This use of the term "grant" should not lead to the presumption that a grant (rather than a cooperative agreement) is the appropriate instrument of assistance. Due to time constraints, it was not feasible to revise the terminology in project documentation.

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON D C 20523

ASSISTANT
ADMINISTRATOR

PROJECT AUTHORIZATION

Country: Africa Regional
Project Name: Semi-Arid Food Grains Research and
Development II
Project Number: 698-0452

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Semi-Arid Food Grains Research and Development II Project for Africa, involving planned obligations of not to exceed \$9,800,000 in grant funds over a four-year period from the date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. Except as A.I.D. may otherwise agree in writing, the planned life of the project is five years from the date of initial obligation.

2. The project will help to increase the efficiency and effectiveness of agricultural research on identified staple food crops (sorghum, millet, maize and cowpeas) in the Semi-Arid Food Grains Research and Development (SAFGRAD) Region by strengthening commodity-specific research networks and the service capacity of regional and national research institutions. The project will provide assistance to two international agricultural research centers (IARCs), the International Institute for Tropical Agriculture and the International Crops Research Institute for the Semi-Arid Tropics, and to the Scientific, Technical and Research Commission of the Organization of African Unity (OAU/STRC).

3. The project agreements which may be negotiated and executed by the officers to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate:

a. Source and Origin of Commodities, Nationality of Services.

Except as A.I.D. may otherwise agree in writing:

(1) Commodities financed by A.I.D. under the project shall have their source and, except for motor vehicles, their origin in the Cooperating Country or in the United States.

(2) Motor vehicles financed by A.I.D. under the project shall have their origin in the United States.

(3) The suppliers of commodities or services financed by A.I.D. under the project shall have the Cooperating Country or the United States as their place of nationality.

(4) As used herein, "Cooperating Country" shall mean the country in which activities financed by A.I.D. under the project take place.

b. Conditions Precedent to Disbursement.

(1) Prior to any disbursement, or the issuance of any commitment documents under the project to a recipient, such recipient shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., a statement of the names and titles of the persons who will act as the representatives of the recipient, together with a specimen signature of each person specified in such statement.

(2) Prior to any disbursement, or the issuance of any commitment documents under the project to finance project activities to be carried out by OAU/STRC after the first year of project implementation, OAU/STRC shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D.:

(a) Evidence that the Executive Secretary of OAU/STRC in Lagos, Nigeria, has delegated to the SAFGRAD Coordination Office (SCO) Coordinator the authority essential for financial management of SAFGRAD II; and

(b) Evidence that OAU/STRC has established for the SCO an accounting system satisfactory to A.I.D. or that satisfactory progress toward that end has been made.

(3) Prior to any disbursement, or the issuance of any commitment documents under the project to finance project activities carried out by an IARC after the second year of project implementation, except as A.I.D. may otherwise agree in writing,

(a) An evaluation report satisfactory to A.I.D. shall have been submitted to A.I.D.; and

(b) Such IARC shall furnish to A.I.D., in form and substance satisfactory to A.I.D., evidence that the evaluation has been reviewed by the IARC; that the performance of the IARC has substantively met benchmarks established in the IARC assistance agreement or set by implementation letter; and that the IARC has taken into account recommendations made in the evaluation and has made adjustments so that the scope of work of the IARC may be performed in a manner satisfactory to A.I.D.

(4) Prior to any disbursement, or the issuance of any commitment documents under the project to finance local costs, the responsible A.I.D. officer shall have made the programming determinations required under chapter 18A1c of A.I.D. Handbook 1, Supplement B.

4. Waivers. Based on the justifications set forth in the project paper and notwithstanding paragraph 3a above, I hereby

a. authorize the procurement of seven project vehicles (pick-ups, cars, and four-wheel-drive carryalls) having their source and origin in Code 935;

b. determine that special circumstances exist to waive, and I do hereby waive, Section 636(i) of the Foreign Assistance Act of 1961, as amended; and

c. certify that exclusion of procurement from Free World countries other than the Cooperating Country and countries included in Code 941 would seriously impede attainment of U.S. foreign policy objectives and objectives of the foreign assistance program.

Date: Aug 20, 1986

Mark L. Edelman

Mark L. Edelman
Assistant Administrator
Bureau for Africa

Clearances: As shown on the action memorandum

1701H

Executive Summary

Authorization of this project will provide 9.8 million dollars for the second phase of the Semi-Arid Food Grains Research and Development (SAFGRAD). The five year project will support a long term research program in food crop development.

Recognizing the importance of sorghum, millet, maize and cowpeas to the people in the semi-arid tropical areas of Africa, the SAFGRAD II project is designed to increase the efficiency and effectiveness of agricultural research to increase production of these crops. Emphasis is on an increased leadership role by African national scientists. Collaborative research networks will be strengthened to plan, make productive use of resources, and broaden the base of support. SAFGRAD II is the second phase of what is anticipated to be a 20 to 25 year sustained program.

The project is designed to:

- o redefine organizational relationships within SAFGRAD with emphasis on bringing leaders of national agricultural research systems (NARSs) to the forefront in order to take on a leadership role in networking and in the overall SAFGRAD process;
- o make collaborative research networking the center piece of the SAFGRAD process;
- o help NARSs to broaden and make more productive use of support for agricultural research, and through doing so, gain national government support for the SAFGRAD process.

The first two years provide transition for a redefinition of the SCU role, a building up of networking. The project provides a continuation of support to the Accelerated Crop Production Officers (ACPOs) for one proposing season and a phase-out of the Resident Research program in the first year of the project. This activity will be assumed by other donors and/or IARC core funding.

Project Coordination	\$	735,781
ACPOs		350,000
Networking:		
West Africa Sorghum		1,664,815
East Africa Sorghum/millet		1,459,926
Maize		2,188,172
Cowpeas		1,889,628
Project Management and Technical Assistance		1,030,000
Evaluation		200,000
Contingency/Inflation		281,550
	\$	<u>9,799,872</u>

SAFGRAD PROJECT PAPER

I. PROJECT DESCRIPTION

A. Background

1. The Problem

Sorghum, millet, maize and cowpeas are the staple foods in the diets of people living in the semi-arid areas of Africa (see map, Annex F). At a time when these areas are experiencing severe drought and pest related famines, so common in recent years, as well as rapidly increasing population levels and changing urban/rural ratios, the governments of the 26 SAFGRAD member countries are faced with the question of how best to increase production of these commodities in light of limited financial and human resources, accelerating environmental degradation, and a weak institutional-support base.

One obvious solution is to bring farmers improved, adapted technologies to increase yields and reduce risk. This challenging task is made especially difficult because the SAFGRAD countries, in general, lack (a) adequately developed national research capacities and well-defined agricultural research strategies and (b) institutions to access and utilize relevant agricultural information and new technologies

being generated by the international agricultural research centers (IARCs) and by other national agricultural research systems (NARSs) with similar agro-ecological characteristics.

2. Project Background

The Major Cereals Research Project (OAU Joint Project 26), initiated by AID in cooperation with OAU/STRC in 1969, was a predecessor to the present SAFGRAD project. This early effort undertook to coordinate testing and multiplication of maize, sorghum and millet seed in the West African countries.

The present SAFGRAD Project was initiated in 1977 in an attempt to develop both research and extension networks in and among what became 26 member countries spanning an arc from southern and eastern Africa across the semi-arid zone of central and western Africa. Funding was provided to IITA for maize and cowpea research, to ICRISAT for sorghum and millet research and to Purdue University for farming systems research. The Accelerated Crop Production Officer (ACPO) activity was initiated in four countries in an attempt to bridge the gap between researchers and farmers through on-farm testing. In addition, France has supported a fifth ACPO in Togo

The initial five year SAFGRAD project was funded at \$13.9 million. Later, funding was increased to \$21.1 million and the project completion date extended to September 30, 1986. Recently, the International Fund for Agricultural Development (IFAD) committed \$3 million to support farming systems research in three countries as well as several staff positions within the SAFGRAD Coordination Office.

The Organization for African Unity's Scientific, Technical and Research Commission (OAU/STRC), whose Executive Secretary is located in Lagos, has overall responsibility and has been responsible for providing policy guidance to SAFGRAD. Day-to-day management and implementation is carried out by the SAFGRAD Coordination Office (SCO) in Ouagadougou. Currently, the SCO has a staff of twenty four, 16 of whom are AID-funded.

The current organizational structure provides for general policy, planning and project guidance to be provided by a Consultative Committee (CC) assisted by a Technical Advisory Committee (TAC). The former is chaired by the Executive Secretary OAU/STRC with membership composed of donors and representatives from the national agricultural research systems (NARSs); the latter includes one NARS representative from each of the four quadrants of Sub-Saharan Africa, the IARCs (ICRISAT and IITA), and other research-related organizations (e.g., INSAH -- the Institut du Sahel and SADCC -- Southern African Development Coordination Council) with the SCO International Coordinator serving as chairman.

3. Previous Project Progress

The 1984 evaluation of SAFGRAD (as well as the 1982 audit) pointed out severe institutional, financial management, and implementation deficiencies. Such a report card was neither unwarranted nor unexpected considering the breadth and complexity of the SAFGRAD milieu, the manifold actors involved, the newness of the project concept, and the magnitude of the problems the project was trying to resolve. Moreover, the evaluation did confirm the continued need for a SAFGRAD-like mechanism, albeit a more focused and efficient entity. Major findings and their resolution include the following:

- o SAFGRAD has made progress in solving operational and management problems. The financial management problems have been resolved with the hiring of an internationally recruited finance officer and an accountant as well as close cooperation of the AID mission. This aspect of project management now has the proper controls and is operating satisfactorily. A procedure of requiring administrative approval on all expenditures by OAU/STRC in Lagos has nevertheless proven to be cumbersome. While administrative management of the office is functioning well, the International Coordinator and the Director of Research are overly burdened with administrative duties.
- o The Organization of African Unity Scientific, Technical and Research Commission (OAU/STRC) served as the coordinating organization, initially including 18 African countries, but later increasing to 26 with three more currently applying for membership.
- o IITA did research on maize and cowpeas with researchers working both in Ibadan, Nigeria and Kampoise, Burkina Faso. 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.

- o ICRISAT had responsibility for research in sorghum and millet. The project paper 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 (IARC) at Samaru, Nigeria. One person, a soil and water management scientist, was stationed at Kamboinse, Burkina Faso. A regional sorghum/millet trials coordinator to work in eastern and southern Africa was added to the ICRISAT/SAFGRAD team in September 1982.
- o The Farming Systems Unit provided under a contract with Purdue University, after an ineffective beginning, altered course and provided some useful information on the national level for Burkina Faso. Aside from development of FSR methodology, the research has had little impact on a regional basis.
- o Five ACPOs are currently located in member countries (Mali, Senegal, Togo, Cameroon, and Upper Volta). They provide 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.
- o SAFGRAD also successfully organized and coordinated the following:
 - Twelve workshops attended by approximately 600 African scientists to exchange ideas and information and plan variety trials;
 - Monitoring tours, small groups 6-8 scientists from neighboring countries, to conduct peer review of research and encourage professional excellence;
 - A newsletter to cooperators in the SAFGRAD network to keep them abreast of project activities;
 - Long-term training for 21 research scientists and short-term training for 70;

Perhaps the most fundamental issue raised by the 1984 evaluation team was a need for 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. The evaluation concluded that SAFGRAD does have a unique role -- it needs to be carefully designed and provided with the resources necessary to do the job.

4. Alternative Approaches to Project Design

Five alternatives were considered:

- o No Project Option. Clearly the first option is to cut-off assistance to SAFGRAD. While this is an option that every design team for a long-term activity must consider, the team recommended against such choice, not because of any overwhelming success attributable to SAFGRAD I, but rather in response to the needs of SAFGRAD countries and the potential impact of a more focused SAFGRAD mechanism over the long-term. The judgement was that a serious vacuum would be created which would be a limiting factor in the development of African semi-arid agricultural production potential.
- o Extension of the Existing Project. A one year extension would allow time to resolve certain preparatory concerns, but was not retained because some critical transition elements could not be fully resolved within this time frame. Specific concerns were nationalization of leadership in the SAFGRAD coordination process; shifting of accent to networking; resolution of siting; and improvement of SCO operational performance.
- o New Two-year Project. This alternative would allow major transition actions to be accomplished before initiating a long-term financial commitment. However, it was felt that a clear indication of continued and sustained support was essential to achieve the fundamental type of transition needed.
- o Transition to Multi-Donor Support. This four-year alternative would provide time to complete all the transition steps leading to a SAFGRAD III project with the aim of achieving multi-donor support as well as transferring the core support of the SCO function to other donors. While perhaps desirable at a future date, this alternative was considered too ambitious and potentially injurious to gains already made under SAFGRAD I. Moreover, such an alternative assumes future commitments beyond the design mandate.

- o Phased Project. This five-year alternative calls for an evaluation at the end of the second year and release of funds for the latter years of the project dependent on accomplishment of the essential transition elements. This option was selected because it

provides incentive for the transition with specification of conditions for continued AID support.

5. A Transition to the Future: Project Rationale

In order to increase agricultural productivity within the SAFGRAD zone, farmers will need improved technological packages and related support services. The project emerges from the basic premise that research results emanating from the IARCs and NARSSs have relevance to other countries whose major staple foods are dominated by semi-arid crops. Specifically, the SAFGRAD mechanism is intended to help participant countries develop and strengthen the capabilities of their scientists and institutions to conduct agricultural research and through networking to share the research findings from all appropriate sources.

In the years ahead, it may be difficult to sustain current levels of financial support for agricultural research in the light of other competing priorities and potential decreases in donor support. This amplifies the importance of making research more cost-effective and relevant to national priorities by encouraging national research leaders to direct and participate in commodity research networks. This, in turn, will enable national programs to have a more direct

impact on the research agenda of the IARCs as well as their own NARSSs. Moreover, the development of collaborative commodity research networks will facilitate the development of national research systems that are practical, cost-effective, and promote cooperation among African researchers.

The second phase continues the long-term effort whose ultimate impact may not be fully realized for two to three decades. The design of SAFGRAD II is based on more focused and streamlined functions, a reduction of project components, a simplified policy forum and a phased process to bring NARSSs to the forefront in direction of the SAFGRAD process. The project is phased, with the first two years serving as a transition period that will result in:

- o a shift in primary emphasis from resident research to collaborative research networking;
- o creation of a simplified oversight structure with policy determination in the hands of national scientists and administrators committed to SAFGRAD objectives;
- o completion of structural and staff adjustments at the SCU focused on specific service functions and streamlined management and;
- o formal agreements with the Government of Burkina Faso that will assure smooth operations for all project staff located in the country, including resident IARC scientists.

The elements proposed in this project are fully consistent with AID's "Plan for Supporting Agricultural Research and Faculties of Agriculture in Africa". The project provides avenues whereby the Collaborative Research Support Programs (CRSP's) and directly-managed centrally funded projects can play broader roles in the strengthening of national and international research as well as increasing the effectiveness of scarce research resources.

Following on the Bonn Economic Summit in May 1985, a multi-donor effort (including AID), the Special Program for African Agricultural Research (SPAAR) is being mounted to coordinate donor support for research to help African countries improve their agricultural performance. In addition, under the Cooperation for Development in Africa (CDA), bilateral donors, including the US, are endeavoring to improve coordination of donor support to agricultural research. This project is fully consistent with and supportive of these efforts.

B. The Project

1. Project Description

The project assists the Semi-Arid Food Grains Research and Development (SAFGRAD) program sponsored by the Organization of African Unity, Scientific, Technical and Research Commission (OAU/STRC) to enhance the capabilities of national scientists and institutions to conduct agricultural research. The project provides for a network mechanism to snare the research findings of participating countries through interaction of the agricultural commodity researchers. This project provides support for a second 5 year phase of a 20 to 25 year program.

A

Moreover, the project is part of a broader multi-donor financed program. Although AID's assistance is supportive of the overall program, its success is not dependent upon other donor support which is largely unpredictable at this particular time. SAFGRAD II emphasizes the strengthening of agricultural commodity research networks, concentrating on linkages within and among collaborating research systems to promote the development and transfer of new production technologies.

The priority components of the project are:

- o Research networks for sorghum, millet, maize and cowpeas;
- o Resident commodity research (for one year) in the above crops;
- o A SAFGRAD Coordinating Office (SCO) for two years and;
- o On-farm testing for one cropping season.

The AID project will concentrate its resources during the first year on networking, resident agricultural research, the SCO, and on-farm testing. During the last 4 years, resources will be focused on networking. Particular attention will be given to the concentration of resources to develop a viable information service provision for adequate travel by the International Coordinator and Research Director and to support workshops for the NARS directors to review policy and resource allocation matters. During year two an assessment will be completed of the potential for accelerating African leadership and identifying an organizational framework required for the latter years of the project.

2. Goal and Purpose

The goal of SAFGRAD II is to increase the productivity and production of maize, sorghum, millet, and cowpeas among small scale producers in the SAFGRAD member and cooperating countries.

The purpose is to increase the efficiency and effectiveness of agricultural research and production techniques for sorghum, millet, maize and cowpeas in semi-arid Africa by strengthening specific research networks for these crops and to improve the service capacity of regional and national research institutions to assist with these efforts.:

3. Inputs, Outputs and Indicators of Performance

Project inputs will include support for the following:

- o networking -- provision for network coordinators and support staff; means to conduct network meetings and monitoring visits; support for circulating newsletters and encouraging research scientists to prepare and circulate research findings and; training of NARS staff in networking and related subjects;
- o resident crop research -- salaries and allowances for researchers, support staff, equipment, and operating expenses for one year;
- o SCO -- recurrent cost support for two years for salaries and related benefits; technical assistance to improve internal operations; and means to increase service capability (travel funds, publications, and other carefully targeted purposes);
- o on-farm testing -- salaries and support for ACPOs in Mali and Burkina Faso for one additional cropping season and support to evaluate the ACPO experience;
- o project evaluation -- two major evaluations are contemplated. The first, at the end of two years, will evaluate whether the SAFGRAD process is bearing fruit, and whether the four networks are functioning according to established principles of successful organization and operation (see II.B.4.a.). The team will assess the SCO's activities for the first two years of the project and review the role and success of the Oversight Committee. The second, at the end of the fourth year or early fifth year, will assess results and provide the basis for judging whether to prepare a SAFGRAD III. Other, topic specific evaluations may be conducted as needs arise.
- o project management -- project funds will be used to finance contract support for project management (see section II.B.).

Project outputs and indicators of performance will include the following:

- o effectively operating collaborative research networks -- West Africa sorghum, East Africa sorghum and millet, and maize and cowpeas starting in West and Central Africa -- in which:

21

- research for each network is reported and reviewed annually;
- future research activities are identified, planned, and allocated among participants annually, e.g., uniform variety trials;
- varieties and agronomic practices are released in each relevant commodity crop by participating NARSS based upon network testing;
- ICRISAT and IITA provide effective coordination and responsive technical back stopping;
- advisory committees, composed of active researchers from the NARSS and IARCs, meet at least biannually to give broad technical direction.
- network priorities are reflected in NARS decision making.

- o effectively functioning Oversight Committee, composed of prominent African national researchers, administrators and/or university faculty, meets at least annually to review progress and determine broad policies for SAFGRAD;
- o effectively functioning service oriented African organization staffed by competent persons, that implements policies established by the Oversight Committee; exercises oversight on networking; analyzes and plans for the future and; facilitates information exchange and other support, as identified previously;
- o on-farm testing methodology is evaluated and, if favorably reviewed, steps are taken to implement and integrate a program of benefit in the NARSS.
- o clarification of opportunities to which donors might respond at the regional and national levels.

Means of verification will include the following:

- o review of government statistics which measure change in adoption of improved technologies, yields and production;
- o review of written reports from the respective networks and the responsible African organization which address the EOP status and outputs respectively identified for each;
- o meetings convened by Oversight Committee and advisory committees; types and level of involvement in annual worksnops and monitoring tours in support of the networks

4. Project Components

To set the stage for describing project components, it is important to understand this project complements other AID funding mechanisms that provide support in three major and closely related areas of agricultural research:

- o AID provides up to 25 percent of core funding to the Consultative Group for International Agriculture Research in support of IARCs (40 percent of core operating budgets of IARCs is directed to Africa and 37.5 percent of IARC staff are located in Africa);
- o USAID missions provide support to NARSS in 19 of the 26 member and 4 cooperating SAFGRAD countries; 12 of these countries receive significant support contributing in building effective research systems.

23

- o AID funded CRSPs and directly managed centrally funded projects either carry out research or provide support to research in selected areas.

This project supports and complements these centrally funded and mission funded efforts and is composed of the following components:

a. Networking

Independent, uncoordinated country by country approaches to agricultural research and the accompanying development of much needed research personnel and institutions by themselves, are costly and not likely to succeed in significantly raising agricultural production in the SAFGRAD countries. It is possible, however, to assemble a critical mass of scientists by collectively joining scientific activities in the various countries and focusing their work on specific problems, i.e. networking. Problems that transcend national borders may be addressed more effectively by institutions that are interregional or global in scope. These institutions, in turn, can provide support to national programs in specific problem areas.

The development of strong networks can facilitate planning of strategic components of research to solve problems, foster horizontal and vertical exchange of scientific knowledge, and lead to cost effectiveness in research and

more rapid and extensive application of improved technologies. This approach was a major contributor to the success of the "Green Revolution" in Asia.

The same principles of networking that succeeded in Asia are being initiated for important commodities in the SAFGRAD countries. The IARCs have taken an initial role in facilitating the networks by providing technical backstopping and training as well as performing research requiring highly trained scientists and sophisticated equipment and facilities. Network management can be designed in such a way that researchers in national programs play an important role in network planning, monitoring and coordination. Over time, national agricultural research systems will assume leadership of the scientific networks, with international and regional centers providing a critical support role.

Certain principles of successful organization and operation of research networks are necessary in the SAFGRAD region to insure success. The following principles must be adhered to during implementation of the project:

- o a common problem must be evident -- several countries within SAFGRAD eco-geographical regions must share interest in research on a specific commodity or problem.
- o technical leadership is essential -- some entity, preferably an apolitical one such as an IARC, with access to funds for technical purposes must give leadership to the initial organizational effort.
- o scientists and research administrators in the SAFGRAD region must be interested -- key scientists and research administrators must respond positively to coordination efforts;
- o participants in SAFGRAD networks must work together collaboratively;
- o a continuing regional coordinating body is essential -- participants must establish a standing advisory committee to provide overall technical leadership and direction for the network;
- o participants of SAFGRAD countries must take specific leadership responsibilities -- participants must agree that leadership for specific components of the work will be identified by mutual agreement and that technical assistance, research, and training (from any source) will be considered a part of the network;
- o scientists must work together on specific problems -- scientists from within the SAFGRAD region must meet periodically to:
 - identify objectives to be achieved;
 - identify technical problems related to the commodity or problem and place them in priority order;
 - identify specific topics to be studied in all countries and other activities to be undertaken by only one or two countries on a SAFGRAD regional basis and;

- decide who will take the lead and which SAFGRAD countries will participate in developing and executing each regional effort.
- o participating SAFGRAD countries must be willing to fund that research carried on in their respective countries which has primarily national impact.
- o good communication among participants is essential -- meetings of the regional advisory committees and participating scientists should be frequent (at least once each year). Such meetings are essential to make decisions concerning operation of the network, activities to be undertaken, budget allocations, assignments of leadership for specific activities and developing positive working relationships.

This project will support collaborative agricultural research networks, following these principles, on sorghum in West Africa, sorghum and millet in East Africa, and maize and cowpeas starting in West and Central Africa. In addition, the sorghum and millet network of Southern Africa will be closely linked to the networks of West and East Africa through jointly planned monitoring tours and workshops.

b. Resident Commodity Research

The SAFGRAD I project provided resources to initiate a major resident commodity research program in Burkina Faso by IITA and ICRISAT. During this second-phase project, a redefined role for SAFGRAD will involve phasing out AID support for resident research activities; assumption of responsibility for support of research by the core budgets of the IARCs or other donors, and targeting of AID project resources on network coordination. AID and other donors are increasingly improving the production of new technologies to provide the drive for network interaction with bilateral and multi-lateral (IBRD, IFAD) support and IARCs are contributing through their core programs.

This project will support resident commodity research on sorghum, millet, maize and cowpeas for one year, but core funding and/or other donor resources will sustain the level of research from year two forward.. The resident research work under the project will primarily take place in Burkina Faso. This resident research will be supported by a regional research program that undertakes the

implementation of region-wide trials, i.e., uniform variety trials in maize, sorghum, millet and cowpeas. The outputs achieved from plant breeding and agronomic practices in the four project supported crops during the past seven years has built a sound base for increasing new technologies and knowledge. For example, several cowpea lines are now under on-farm testing in several countries of the region. It is reasonable to believe that some of these cowpea materials will prove acceptable to farmers in the next couple of crop years. As these materials become farmer-acceptable, it will be necessary for the nationally sponsored technology transfer institutions to disseminate the seeds on a wide scale. On-farm testing is also being carried out on sorghum, maize and millet plant materials; it is reasonable to believe that some of these varietal lines will be acceptable to farmers.

Thus, the resident research in the areas of plant breeding and agronomic practices will achieve two objectives: (1) national agricultural research scientists and institutions will be strengthened and; (2) new technologies will be developed in areas of new plant varieties and cultural practices.

c. African Regional Coordination

Scientists, acting as researchers, by themselves face several difficulties in carrying out their professional tasks. In particular, they need political support which transcends national boundaries if they are to achieve the full potential of networking activities. The project will support the SAFGRAD Coordination Office (SCO) in Ouagadougou (operating under OAU/STRC) for two years, whereupon a determination will be made on the most appropriate organizational framework to fulfill the following critical roles for the long term.

- o work with NARSS and associated networks to identify broad research policies for sorghum, millet, cowpeas and maize;
- o serve as observers on commodity research network advisory committees (composed of national scientists) for the purpose of promoting achievement of SAFGRAD policies and objectives;

21

- o help overcome political problems that affect cooperation between countries and international programs;
- o help overcome operational problems which limit effectiveness of networks by encouraging NARSS and other sources to allocate adequate funding for conducting trials;
- o facilitate movement of scientists, germ plasm and research supplies among countries, including support for network meetings;
- o facilitate information exchange through frequent newsletters, scientific reports, etc., including reports of successes to national governments and NARSS;
- o assist NARSS to broaden the base of research support, including assistance from donors, and to make more productive use of available resources.

The African regional entity (initially the SCO) will operate under the direction of an Oversight Committee composed of prominent African agriculturalists (Annex J.) which will have responsibilities to:

- o review work plans and provide guidance on how SAFGRAD could provide effective technical services to national research programs of member countries;
- o facilitate the realization of food grain and related networks that could be supported and administered by scientists of participating countries;
- o provide guidance in management and policy issues of SAFGRAD; and
- o review annual technical progress of SAFGRAD activities for interaction with the Sponsoring Group (and later with donors in observer capacities) to ensure further financial support.

d. On-Farm Testing

Improved technologies only pay-off when they are adopted by farmers. In order to achieve this impact, research must be tested under farm conditions. In principle, on-farm research should be a function of NARSS. However, not all NARSS have developed this linkage successfully nor have

methodologies been developed to provide adequate assurance the new technologies will be better than traditional technologies under similar conditions.

The Accelerated Crop Production Officers (ACPO) program serves as a technology transfer mechanism between the national research institution and the national extension institution. Its program activities are to conduct, monitor and report on the testing of relevant technologies carried out at the on-farm level. The findings of the ACPO program are reported back to the scientists conducting crop research and extension workers as well as to farmers.

The ACPO program was evaluated positively during SAFGRAD I. However, there has been considerable variation in methodology between locations, and successful performance by ACPOs appears to be associated more with individuals than with the system. All agree to a need for bridging the gap between research and the farmers. The project will assist in an orderly transition to allow time to identify next steps and, if follow-up is indicated, permit the SCO to secure other donors support. This project will support ACPOs in Mali and Burkina Faso for one additional cropping season and support an evaluation and project preparation to achieve transition.

e. Donor Support

Support from other donors has not been made a condition nor has a specific target been set because this project must be justifiable without such contingency. However, broadening the base of donor support and sustaining or expanding the assistance level for national agricultural research primarily, then for SAFGRAD activities, is essential. Over time, it is hoped that by so doing, a firmer basis will be found to generate core support for a streamlined African Coordinating Organization.

The project will address donor support in two ways: (1) by clarifying tasks for which donor assistance may be attracted, where the need and nature are apparent, e.g., support for on-farm demonstrations, crop research, and research or networking on technical themes (soil and water management, use of diverse cropping practices, inputs, etc.); and (2) by improving lines of communication with donors, directly, through OAU/S'TRC/Lagos and SCO, as well as by assisting the IARCs in their bilateral relationships. The evaluation at the end of the second year will look at progress in this area.

IFAD is currently the only other donor providing major funding to SAFGRAD (the French are supporting one ACPO). The design team has communicated the proposed project plan to IFAD and expressed the desire that IFAD consider funding on-farm research (ACPOs) if the proposed evaluation proves positive. The Special Program on African Agricultural Research (SPAAR) provides one forum to seek additional support for research activities.

5. Roles and Responsibilities of the African Coordinating Entity, Oversight Committee, and the Networks

The project is predicated on a mutually supporting, closely linked division of responsibility of all parties, but particularly between the African Coordinating Entity and the networks. The coordinating/facilitating function will be assumed by the SAFGRAD Coordination Office (SCO) during the first two years of the project.

a. The African Coordinating Entity:

The SCO and any successor organization will carry out service functions with responsibility for:

- o implementing the broad policies established by the Oversight Committee concerning the technical dimensions of the networks operations;
- o supporting network operations in specific ways that can be identified in advance (as discussed in I.B.4.c.);
- o supporting network operations in more general ways that often cannot be identified far in advance but must be pursued, as they arise such as, resolving political problems that affect cooperation between countries and international programs and identifying needs and arranging opportunities to improve trained manpower.

b. Networks

Networking is primarily a technical process in which management is carried out under the direction of and by professionals trained in and actively involved in research. The advisory committees of the respective networks have responsibility to set agendas for annual meetings, monitoring tours and commodity oriented problem specific workshops. The network coordinators will purchase tickets and make arrangements, as necessary, to support planning, implementing, analyzing and reporting on trials.

P

Initially the IARCs will provide network coordinators. The advisory committees will be composed of practicing researchers primarily from the NARSSs. The coordinator role will eventually shift to the NARSSs although not until such time as it can be done without reducing the capacity of the NARSSs to carry out research.

Implementation of the four commodity networks of this project initially will be the primary responsibility of the International Institute of Tropical Agriculture (IITA) and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).

- o International Institute for Tropical Agriculture (IITA). IITA commenced its activities with SAFGRAD in 1977. Under the project, IITA will conduct maize and cowpea research at the Kamboinse experiment station and six other smaller research stations located throughout Burkina Faso. The maize and cowpea research will be focused primarily on breeding, agronomy and entomology. AID support for this research will be phased out at the end of the first year of project operations. A minor amount of agronomic research and, if needed, attention to trial seed multiplication will be carried out by the network coordinators during the last four years of the project.

In addition to the research conducted in Burkina Faso, IITA will undertake regional research activities in maize and cowpea crops in about 10 to 12 SAFGRAD member countries. Also, IITA and the SAFGRAD Coordination Office will undertake the formation of networks for each crop, commencing with the organizational development work in 1986. Organization of the two networks will be the responsibility of IITA. Coordinators for the maize and cowpea networks will be provided by IITA with funds allocated in this project. Each network will establish an advisory committee composed of African scientists to help direct and guide the operations of the network.

- o International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) ICRISAT began its cooperative research program in the Sudanian-Sahelian zone of West Africa in 1975. Under this second phase of the project, ICRISAT will continue to carry out agronomic research on sorghum in West and East Africa, supported in part during the first years of the project, by AID. The agronomic research in West Africa will be carried out at the Kamboinse Research Station located in Burkina Faso.

131

A sorghum network has already been established for a large number of countries in West Africa (10-12). ICRISAT has been providing leadership, along with the SCO, in organizing the West Africa Sorghum Network. During the life of this project, ICRISAT will provide a full time coordinator to assist the African scientist-led advisory committee to operate the network.

The East Africa Sorghum and Millet network has been operational for about three years. The Coordinator for this network has been and will continue to be provided by ICRISAT. This network is composed of 6 to 8 countries, with the advisory committee of African scientists to provide direction and guidance to the network. This project will provide support to the network throughout the next five years.

c. Relationships among the respective parties

Each of the main parties has specific roles:

- o The African Coordination unit has a political role in facilitating network operation and securing broader donor support for networks and NARSS;
- o The Oversight Committee establishes broad policies and objectives for SAFGRAD;
- o The networks are implemented by researchers of the NARSS and IARCs with coordination by the IARCs; and
- o The SCO and any successor organization plays a service role in facilitating successful performance, consistent with SAFGRAD policies and objectives, by the networks and NARSS.

To carry out this division of responsibility between the respective parties to achieve mutually desired objectives requires that:

- o Each party respect the roles set out and;
- o Each party take extra efforts to assure that the other parties are fully informed about activities.

Thus trip reports and correspondence should be exchanged among the networks and SCO. The SCO should attend as observers at network advisory committee meetings and attend annual workshops and monitoring tours. Similarly, the network coordinators should attend as observers at the Oversight Committee meetings. Observers would be available for questions and comment on matters under discussion.

The NARSSs are represented on both the Oversight Committee and the advisory committees of the networks and serve as a bridge between the two.

Support for regular meetings of the network coordinators and the designated African coordinating entity will further improve linkages. Coordinators will meet with the leaders of the coordinating body semiannually to coordinate schedules for advisory committee meetings, annual workshops, monitoring tours, etc.

6. Relationship between SAFGRAD and INSAH

It appears that specific roles and understandings are emerging between SAFGRAD and INSAH. For example, under the SAFGRAD II project, the commodity network advisory committees composed of NARS scientists will be responsible for planning the uniform variety trials and monitoring and evaluating network activities. The forthcoming INSAH PID review should provide further clarification; at least the stage should be set for making refinements during the design of the INSAH project if AID decides to support INSAH.

7. Budget

A total of \$9.8 million will be required to finance AID supported activities of SAFGRAD II. These funds will be obligated incrementally over the life of the project, beginning with an initial obligation of \$3.353 million in FY1986. A second tranche of \$3.8 million is planned in FY 1987 with the remaining requirement of \$2.847 programmed for obligation in FY 1988. These levels are based on the requirement to incur approximately fifty percent of total expenditures during the first two years of the project. Front end loading of the project is essential to effective implementation and is a function of the following strategic design decisions:

SAFGRAD II SUMMARY BUDGET

Components	Research Year 1	Year 1	Year 2	Year 3	Year 4	Year 5	Network Total	Grand Total
I. WEST AFRICA SORGHUM COLLABORATIVE RESEARCH NETWORK (ICRISAT)	175,270	267,450	315,100	283,811	315,503	307,681	1,489,545	1,664,815
II. EAST AFRICA SORGHUM/MILLET COLLABORATIVE RESEARCH NETWORK (ICRISAT)	157,270	266,650	240,560	248,807	271,570	275,069	1,302,656	1,459,926
ICRISAT SUB-TOTALS	332,540	534,100	555,660	532,618	587,073	582,750	2,792,201	3,124,741
III. COMPLEX COLLABORATIVE RESEARCH NETWORK (IITA)	325,676	306,500	332,198	292,627	321,086	311,541	1,563,952	1,889,628
IV. MAIZE COLLABORATIVE RESEARCH NETWORK (IITA)	563,514	302,750	339,014	317,677	326,746	338,471	1,624,658	2,188,172
IITA SUB-TOTALS	889,190	609,250	671,212	610,304	647,832	650,012	3,188,610	4,077,800
V. SAFGRAD COORDINATION OFFICE (SCO)		361,572	374,208				735,781	735,781
VI. PROJECT MANAGEMENT REQUIREMENTS		230,000	320,000	220,000	175,000	285,000	1,230,000	1,230,000
VII. ACCELERATED CROP PRODUCTION OFFICER PROGRAM		275,000	75,000				350,000	350,000
GRAND TOTAL	1,221,730	2,009,922	1,996,080	1,362,922	1,409,905	1,517,762	8,296,592	9,518,322
VIII. INFLATION & CONTINGENCY	36,652	56,298	59,882	40,888	42,297	45,533	244,898	281,550
GRAND TOTAL WITH INFLATION & CONTINGENCY	1,258,382	2,066,220	2,055,962	1,403,810	1,452,202	1,563,295	8,541,490	9,799,872

86

- o support for resident research by the IARCs will be limited to the first year of the project after which AID funding of IARC involvement in SAFGRAD will be limited to network coordination;
- o AID support for the Accelerated Crop Production Officer Program will be discontinued after the first year of the project and;
- o project technical assistance to the SCO will be provided during the first two years of the project.

It is anticipated that the project will be authorized prior to September 30, 1986 and that the effective date for undertaking authorized activities will be October 1, 1986.

8. Issues

a. How will sustainability be addressed?

Sustainability will be advanced in two ways: (a) transfer of leadership to selected individuals actively associated with NARSs; and (b) broadening the base of assistance for and maintaining continued support for agricultural research.

The former raises two concerns. First, will the NARS leaders accept the authority offered (and what is the incentive for them to do so)? This is the heart of the national commitment sought. The design team concluded that by concentrating on those countries that recognize what they may gain from SAFGRAD and by picking the leaders based on demonstrated interest and talent, there is reasonable prospect for favorable response. The second concern is how the leaders will be picked. This will be through consultation among OAU/STRC and the leaders most active in the networks; the mechanism is described in Annex J.

137

Broadening the base of donor support for national research likewise has two dimensions: more focus by Coordinating Organization on encouraging donor and national government support for agricultural research and better definition of opportunities for donor investment together with a strategy for attracting donor participation.

b. How will problems of operating in Burkina Faso be addressed?

Two types of problems are noted: (a) physical facilities and research conditions at Kamboinse research station; and (b) problems with the Burkina Government as regards

supervision of Burkinabe personnel. The former is a physical constraint, but does not go to the heart of SAFGRAD II, both because it may be alleviated and because AID will withdraw from funding crop research. The latter affects work of the IARCs and may be a special problem for the SCO. There will be need to assure that the staff reorganization will not be interrupted by the GOBF; even so, careful monitoring will be essential. Relocation is not considered at this time.

II. IMPLEMENTATION

A. Implementation Plan/Schedule

The OAU/STRC/Coordinating Office located in Ouagadougou will serve as the facilitator during the first two years for service activities required to increase the effectiveness and efficiency of the national agricultural research systems in SAFGRAD member countries. The SCO will focus its efforts on negotiating with governments, securing donor support and related matters. An Oversight Committee will be established to provide guidance in the broad areas of government policies affecting agricultural research and suggest program areas for other donor support. The Oversight Committee is scheduled to meet once a year, but can meet more frequently should it be necessary.

The following schedule lists critical project actions necessary for the accomplishments of project purpose and successful implementation of the proposed SAFGRAD II project:

<u>Date</u>	<u>Activity</u>	<u>Action</u>
June 1986	Project Paper Approved	AID/W
Aug 1986	Project Paper Authorization Cable	AID/W
Sept 1986	Grant Agreements signed between USAID/B and (1) OAU/STRC/Lagos (2) IITA/Ibadan, (3) ICRISAT/Hyderabad	USAID/B & REDSO/WCA
Sept 1986	Initial Conditions Precedent Met	OAU/STRC
Sept 1986	Recruitment initiated for long-term technical assistance	USAID/B & AID/W
September 1986	Research monitoring tours	IITA & ICRISAT
October 1986	Advisory Committee meetings for sorghum/millet networks	ICRISAT
October 1986	ACPO Workshop	SCO
December 1986	NARS directors meet and Oversight Committee selected	SCO
January 1987	Oversight Committee meets	SCO
February 1987	Advisory Committees organized for cowpea and maize networks	IITA
February 1987	Advisory Committees for sorghum and millet meet	ICRISAT
March 1987	Short-term TA in office skills	SCO
June 1987	First year covenants are met	OAU/STRC
June 1987	Determination of process to review African Coordination Entity	AID/W
July/August 1987	Annual workshops or monitoring tours	IITA & ICRISAT
Aug/Sept 1987	Problem-oriented workshops	IITA & ICRISAT

October 1987	Review team in field to review options for African Coordination Entity	AID/W & USAID/B
January 1988	AID support for ACPOs in Burkina Faso and Mali terminates	USAID/B
January 1988	Oversight Committee meets	SCO
February 1988	Advisory Committees meet	IITA & ICRISAT
May 1988	Midterm evaluation	USAID/B
June 1988	Project management decision on African Coordination Entity	USAID/B
July/August 1988	Annual workshops or monitoring tours	IITA & ICRISAT
Aug/Sept 1988	Problem-oriented workshops	IITA & ICRISAT
October 1988	Implementation of decision made on and African Coordinating Entity	USAID/B
December 1988	NARS directors meet	African Coordinating Entity
January 1989	Oversight Committee meets	" " "
February 1989	Advisory Committees meet	IITA & ICRISAT
July/Aug 1989	Annual workshops or monitoring tours	IITA & ICRISAT
Aug/Sept 1989	Problem-oriented workshops	IITA & ICRISAT
January 1990	Oversight Committee meets	African Coordinating Entity
January 1990	Final evaluation	USAID/B
February 1990	Advisory Committees meet	IITA & ICRISAT
March 1990	PID team recruited for SAFGRAD III	AID
July/Aug 1990	Annual workshops or monitoring tours	IITA & ICRISAT
Aug/Sept 1990	Problem-oriented workshops	IITA & ICRISAT
October 1990	PP team recruited for SAFGRAD III	AID
January 1991	Oversight Committee meets	African Coordinating Entity
February 1991	Advisory Committees meet	IITA & ICRISAT
June 1991	Project moves into third phase	USAID/B

B. Project Management

Experience with a bifurcated project management structure in SAFGRAD I provides a strong incentive to assure clear, unified project management by AID in SAFGRAD II. Full responsibility will be with USAID/Burkina. The Mission has agreed to this arrangement. It will call upon REDSO/WCA as needed, for assistance in such areas as legal and contracting services. The project will fund a senior agricultural project manager and an accountant to assist USAID/Burkina and its Office of Agriculture in carrying out its responsibility.

The Senior Agricultural Project Manager must be an experienced agricultural research administrator with specific skills in networking. He/she will monitor the implementation of all project components and activities and be the working link between USAID/Burkina and OAU/STRC (as well as any organization that may succeed it).. He/she will consult regularly with commodity network coordinators and key national scientists, a task which will require frequent travel. This person may be provided under a contract or a PASA arrangement. A profile of this position is given in Annex G.

In view of the expanded USAID/B coordinating and liason role envisioned in the area of financial monitoring and tracking of project financial progress, it is deemed necessary to retain one local accountant under a personal services contract to maintain the financial integrity of the project at USAID/B. This contractor will be directly responsible to the USAID Office of Financial Management and will act as the Mission financial expert in coordinating any financial detail with the SCO, including such voucher review as deemed warranted by USAID, budgeting, review of project implementation letters relating to budget revisions, liason with the SCO in applying AID financial regulations as deemed appropriate, and maintenance of USAID financial records and files in relation of the overall project as well as preparation of such internal and external financial reports as warranted.

It is expected that this position will encompass a close and direct liason with the USAID Senior Agricultural Project Manager relative to

financial status, advice, and guidance thereto and with OAU/STRC/Lagos during the first two years, to keep them advised of current project financial status to the extent required.

C. Technical Assistance

Technical assistance to the SCO will be concentrated during the two-year period at the beginning of SAFGRAD II to enable the office to carry out its mandate and operations as a service oriented organization.

39'

The project provides for 12 person months of short term technical assistance to be carried out in a series of one to two month TDY assignments. This assistance is to be focused on specific skill development needs within the staff and includes such areas as proficiency in use of the computer/word processing system to be provided, preparation of publications, editing skills, office systems and other areas identified to increase productivity of the core staff.

D. Procurement Plan

USAID/Burkina Faso will make a two-year grant to the OAU/STRC/Lagos which will be responsible for facilitating and coordinating project implementation during this period. The OAU/STRC/Lagos will delegate authority to OAU/STRC/SAFGRAD Coordinating Office (SCO) located in Ouagadougou to carry out implementation of local procurement. AID will exercise oversight in these procurement actions.

Grants to the two IARCs will also be handled by USAID/Burkina Faso. There will be two separate grants let under the project to (1) the International Institute for Tropical Agricultural and (2) the International Crops Research Institute for the Semi-Arid Tropics. These international institutions will procure commodities and services as provided for under their grants.

USAID/Burkina Faso will contract for required professional services, i.e. Senior Agricultural Project Manager and Accountant. It is proposed that these two positions be contracted through a personal services contract mode, USDA/PASA, or an 8-A set-aside.

See Annex L. for specific details on procurement.

E. Monitoring/Evaluation

Major responsibility for monitoring of SAFGRAD II will rest with USAID/Burkina Faso for general project management as well as financial management. While the Mission Director will have overall responsibility, the Mission Agricultural Development Officer and the Mission Controller will have operational responsibility for the project. The Senior Agricultural Project Manager will monitor performance of all components of the project (OAU/STRC/Lagos, Oversight Committee, SCO, and networks) with an adequate travel budget to carry out his responsibilities. He/she will develop a monitoring plan with the SCO which will rely on regular reporting. It is anticipated that the Controller will hire, locally, a qualified Accountant to see that project accounts are managed properly.

Two evaluations are scheduled during the life of the project, one at the end of the second year and the other at the end of the fourth year or early in the fifth year. It is expected that these evaluations will be done by individuals who are not closely involved in project management. A three-person evaluation team composed of contractors and/or AID direct-hire employees will assess progress toward achievement of project goals and objectives outlined in the project paper for each of the evaluations.

USAID/Burkina will undertake a review of the SCO management and render a decision as to the type of African Coordinating Entity needed after October 1988. This management decision will be made during June 1988.

The mid-project evaluation will be a basis for making changes in project direction if deemed necessary at the time. The evaluation will cover such subjects as network performance, project coordination, development of oversight capability, location of project headquarters and impact and support for SAFGRAD objectives (performance of NARSSs, donor support, etc.).

The final evaluation near the end of the project will measure project achievements against project objectives and recommend future courses of action that may include a follow-on project.

It is clearly anticipated that the development of research networks for the four major food grains will be a long-term effort.

F. Legal Arrangements, Conditions Precedent and Covenants: There will be three grant instruments: one with each of the IARCs, one with OAU/STRC. To avoid a break in project activities, funding for the first twelve months will be made available as soon as the minimum legal conditions are met. The agreement with OAU/STRC will be for the two years only, those with the IARRCs for five years. Before disbursement of funds for the second year of the project OAU/STRC must provide the following:

1. Evidence that the Executive Secretary in Lagos has delegated to the SCO Coordinator in Ouagadougou the authority essential for financial management of SAFGRAD II; and
2. Evidence that an accounting system satisfactory to A.I.D. has been established or that satisfactory progress has been made toward that end in a manner acceptable to AID.

A critical evaluation will occur at the end of the second year of the project. It will have several objectives: (1) to review progress in attracting national agriculture system research leaders to take leadership of the Oversight Committee and that the Oversight Committee is functioning as the policy, technical and operational decision making body for networking funded by SAFGRAD; (2) to determine whether the research networks are operational with NARSS representatives assuming a leadership role (which meets benchmarks to be established by AID in implementation letter after consultation with the networks coordinators); (3) to ascertain whether the IARCs are meeting performance targets which will be agreed upon between AID and the IARCs and specified in project implementation documents; (4) to appraise the performance of OAU/SERC/SCO and other concomitant efforts to promote African leadership in networking; and (5) to review progress in obtaining other donor support for national operational research and for networking.

For each of the IARC grants, as a condition precedent to disbursement of funds following the second year of the project the following must be made, be submitted to A.I.D., in form and substance satisfactory to AID:

A response given evidence that the evaluation has been reviewed by the IARC; that performance of the IARC has substantively met benchmarks established in the grant agreement or set by implementation letter; and further that the IARC has taken into account recommendations made in the evaluation and has made adjustments so that the scope of work of IARC may be performed in a manner satisfactory to AID.

III. SUMMARY OF ANALYSES

A. Organizational Analysis

The organizational requirements for SAFGRAD II are driven by the need to move into a new phase of this 20 to 25 year effort -- a phase which builds on experience of the past seven years and establishes a solid framework for long-term development into the future. Consequently, the first two years of this project will be devoted to an orderly phaseout of support for activities which are not essential to the core focus of the next phase and a realignment of roles and responsibilities as described earlier in this paper. The transition will result in an inter-linking set of functions with the following organizational responsibilities:

- o African Coordinating Entity the locus of interaction among the parties with responsibility to provide critical information and problem solving services;
- o IITA and ICRISAT provide staff for organizational development of the networks, including network coordinators and conduct resident research during the first year of the project;
- o Oversight Committee the policy body of SAFGRAD made up of eminent research scientists and administrators from member countries;
- o National Agricultural Research Systems the source of network members who both set the direction and are primary beneficiaries of output from the networks;
- o USAID/Burkina as representative of the grantor, provides technical and project management support.

The organizational analysis consists of relations among organizations involved in the SAFGRAD process.

1. Redefining roles and relations among the participating institutions has been based upon the following principles:
 - a. NARS leaders will become the policy makers for SAFGRAD management and move into a lead position within the networks;
 - b. OAU/STRC (or its successor), as the African regional umbrella organization, has an important role with specific responsibilities for which performance targets can and should be established;
 - c. the SCO, or other African Coordinating entity, can be most effective in a service oriented role that is focused on information exchange and facilitates the work of all parties to SAFGRAD; and
 - d. the IARC's are best positioned to take the initial lead in coordinating network operations;

43

2. Internal organizational requirements for the SCO during the first two years have been defined to be consistent with the following guiding principles:
 - a. SCO senior staff should respond to NARS leaders;
 - b. a delegation of authority from OAU/STRC/Lagos to the SCO, particularly in financial management (approval of all vouchers) and staffing, is necessary for efficient operations of the SCO;
 - c. the leadership of SCO must be relieved of day-to-day administrative and financial tasks so that they can devote attention to research networking, exchange/feedback and assisting NARSS to obtain support;
 - d. financial and administrative management units are necessary within SCO to effectively assume internal leadership responsibility in these areas; the structure and talent for the financial management unit are present within the organization;
 - e. internal capabilities must be developed in communications, including editing and language facilitation;
 - f. networking liaison capability must be further developed within the research unit;
 - g. in-service training will be provided for staff (and possibly some third country participant training if shown to be cost effective), particularly to increase productivity, develop word processing and computer skills, and improve publications; and
 - h. make more effective integration of AID/IFAD support to SCO.

At present, there are four senior professionals and an office manager as international employees of SCO and 19 local hire employees (IFAD funds 2 professionals and 6 staff, AID funds 2 professionals and 14 staff) During years one and two of this project AID will continue support for two professionals and only 7 locally recruited staff members. AID will pay severance and relocation costs for the two internationally recruited professionals, if necessary, at the end of year two.

44

B. Technical Analysis

The semi arid tropics (SAT) of Sub-Saharan Africa encompass a broad, arable belt of land ranging from 300 to 900 km wide and about 4,000 km in length from the Atlantic to the Abyssinian Massif and then runs along the eastern coast from the eastern lowlands of Ethiopia to South Africa. In West Africa this region typically lies between the 10th and 20th North parallels and is classified according to annual rainfall belts:

- o Northern Guinea Savanna: 900 to 1,000 mm
- o Sudanian Savanna: 600 to 900 mm
- o Sahelian Savanna: 300 to 600 mm

Constraints. In general, the rainy season in the more southern Guinea zone begins earlier and continues longer with 4 to 5 months of precipitation exceeding evapotranspiration. To the north the rains begin later and end sooner, but a 2 to 3 month growing season is minimal for arable cropping. Total annual rainfall averages do not accurately indicate seasonal fluctuations of 50% or more, prolonged intervals between rains, and high intensity of precipitation -- all of which delimit the kinds of crops grown and cultivation practices used.

Other physical factors regulating cropping throughout the semi-arid tropics of sub-Saharan Africa are: (a) high soil surface temperatures; (b) low water infiltration; (c) strong tendency for soil compaction and crusting; and (d) a potential for soil erosion when continuous cultivation is practiced. Moreover, the soils are fragile and degradation takes place rapidly under some forms of management. Added to the many physical deterrents to food crop production in the semi and tropical zone are such constraints as fungal, bacterial and viral diseases, insect concerns as to stem borers, leaf feeders, head and pod seed insects and birds. There are also a variety of weed problems, including striga.

Production Systems. In general, farmers have developed a wide array of farming systems over the years. These farming systems have been adapted to the various soils, rainfall and other cultivation practices. The choice of the dominant cereal -- maize, sorghum or millet -- depends on rainfall and the nature of the soils. Moreover, the traditional farming systems are highly diversified to include cereals, legumes, livestock rearing and gardening, often intercropped. Traditionally, farmers have farmed extensively using low amounts of purchased inputs. Farmers try to reduce risks caused by weather, pests and market fluctuations.

45-

Technology Generation. Sorghum is grown on an estimated 16 million hectares, millet on 13 million hectares, maize on 11 million hectares, and cowpeas on 8 million hectares throughout the SAFGRAD region. To meet the demands of the high stress conditions, this project is building on 7 to 8 years of development activities started under the first SAFGRAD project using two international agricultural research centers - IITA and ICRISAT which have been conducting research at the national and regional levels.

Cowpea Research. The cowpea research of IITA focuses on breeding and agronomy. The primary objectives of the breeding program are (1) striga resistance, (2) drought resistance and (3) insect resistance. In the case of agronomy the objectives are (1) mixed cropping and (2) management of monocrop cowpeas. Approximately 63 scientists work on cowpeas throughout the 29 SAFGRAD member and cooperating countries. The cowpea research conducted under SAFGRAD by IITA and the national agricultural research systems has resulted in one new variety being released by Burkina Faso. In addition, on-farm testing of selected germ plasm is currently being carried out in Burkina Faso, Mali, Ghana, Nigeria, Benin, Cape Verde, Gambia, Mauritania, Niger, Senegal, Chad and Cameroon. The regional cowpea research program being carried out in IITA will serve as the technical basis for the cowpea network in SAFGRAD II.

Maize Research. The maize research program of IITA focuses on breeding and agronomy. The breeding program focuses on genetic improvement to develop (1) early and medium maturity high yielding varieties and (2) drought resistance varieties. Agronomy research objectives have been to (1) assess soil, climatic and management factors (2) establish suitable management practices for maize under low and high management and (3) improve maize yields under drought conditions. About 200 scientists work on maize in the region. Research has resulted in release of one variety in Ghana; other varieties are in advanced testing in Mali, Cameroon and Burkina Faso. On-farm testing of maize varieties is being carried out in Togo and Benin. During the life of SAFGRAD II, the on-going regional maize research program will be the technical basis for the maize network.

Sorghum and Millet Research. ICRISAT's sorghum research program has encompassed both breeding and agronomy. Major research objectives are: (1) yield stability under low management and high stress, (2) good seedling establishment, (3) downy mildew resistance, (4) appropriate maturity/photosensitivity (usually 90-100 days), (5) good acceptable product quality (grain and forage) and (6) striga

resistance. About 175 national research scientists work on sorghum and millet in the SAFGRAD region. During the life of the SAFGRAD project, the breeding and agronomy activities have produced 8 varieties that are now being field tested in 10 or more countries in West Africa. The sorghum and millet network in East Africa and the sorghum network in West Africa are already established and this project will continue to provide funding for strengthening network operations.

Millet research will be centered at the ICRISAT Sanelian Center, Niamey, Niger. Research at the Center is funded by resources external to this project. Research conducted at the Center focuses on the Sanelian Zone. The principal breeding objectives are resistance to striga, downy mildew and drought. Improved strains of millet are not yet ready for intermediate and long duration crops, but early strains for late plantings are available. Advanced lines of the former will probably go into regional tests in 1986 and should be ready for release in 1988 or 1989.

C. Economic Analysis

Results of over 50 studies covering a range of commodities in various areas throughout the world have convincingly demonstrated that economic returns to agricultural research when done successfully, have been very high -- much higher than most alternative investments.

It is difficult to calculate benefits from research ex ante because the outputs and adaptability cannot be predicted with accuracy; technological improvements can result from any of several lines of research, and many factors, not all controllable, influence adoption. However, three types of technological improvements, begun under SAFGRAD I and extending into SAFGRAD II, provide indications of potential returns:

1. Tied ridging would break-even on overall project costs if the technology were applied in 280,000 hectares over a 20 year period -- only 15 percent of the total potential area calculated for Burkina, Mali, and Nigeria.
2. The entire project will pay for itself by year 16 if an improved variety (for example, Framida, E-35-1 or 1002) is sown on only 1 percent of the sorghum area in the SAFGRAD participation countries.
3. The break-even point for adoption of stress-tolerant maize is cultivation on 7 percent of the total available maize land in the SAFGRAD participating countries.

Thus, the probabilities of positive economic returns to SAFGRAD II are very high.

D. Social Soundness Analysis

The ultimate beneficiaries of technologies generated through SAFGRAD sponsored research are 225 million farmers in 26 member countries. The semi-arid tropics include some of the world's poorest people -- existing on some of the world's least endowed areas in terms of natural resources. Population pressures are increasing intensely on existing lands and pushing farms into lower, more marginal lands. If the project can develop more productive technologies for sorghum, millet, maize, and cowpeas -- which is what these people eat and from which they derive some income -- it can impact very positively on their lives. It is essential however that the technical orientation of the research be consistent with African concerns and values, which is a major reason for the project facilitating a transition in leadership to African national leaders and scientists.

E. Environmental Analysis

Limited use of pesticides in anticipated agricultural research will not have a significant adverse effect on the environment, assuming that the risks associated with such use are reduced to a minimum by observance of standard practices. The long-term objectives of the project emphasize development of pest control methodologies which will suffice in the absence of pesticides. The potential for increased availability of a nutritious and stable food supply in the "hunger belt" of Africa more than off-sets risks associated with the use of these chemicals. More detail is given in Annex D.

48

ANNEXES

- A. Logframe
- B. USAID Support to Agricultural Research in SAFGRAD Countries
- C. Production of Food Grains in SAFGRAD Countries During 1983
- D. Environmental Assessment
- E. Statutory Checklist
- F. Map of SAFGRAD Countries
- G. Position Description -- Senior Agricultural Project Manager
- H. Vehicle Waiver Justification
- I. Human Rights Clearance
- J. Oversight Committee
- K. PID Approval Message
- L. Procurement Plan
- M. Budgets
 - a. SAFGRAD Coordination Office (SCO)
 - b. West Africa Sorghum Collaborative Research Network
 - c. East Africa Sorghum/Millet Collaborative Research Network
 - d. Maize Collaborative Research Network
 - e. Cowpea Collaborative Research Network
 - f. Project Management Requirements
- N. Acronyms and Abbreviations

ANNEX A

LOGICAL FRAMEWORK MATRIX

Log Frame -- SAFGRAD II

Narrative Summary

Program or Sector Goal

To increase the productivity and production of maize, sorghum, millet, and cowpeas among small scale producers in the SAFGRAD member and cooperating countries.

Program Purpose

To increase the efficiency and effectiveness of agricultural research on identified staple food crops in the SAFGRAD region by:

- strengthening commodity specific research networks to plan, broaden their base of support and make productive use of resources; and
- strengthening the service capacity of the OAU/STPC/SCO to facilitate the NARSS' participation in networking and obtain internal and external support for national research programs to accomplish this purpose.

Objectively Verifiable Indicators

Measures of Goal Achievement

- Increased yields,
- Increased production
- Increased adoption of improved technologies.

EOP Status: Conditions to indicate achievement

- Effectively operating collaborative research networks (West Africa sorghum, East Africa sorghum/millet, maize and cowpeas starting in West and Central Africa) which operate by the following criteria:
 - establish common goals;
 - leadership by an apolitical entity with continuity;
 - policy set by advisory committee of researchers;
 - conducts, at least, annual meetings to identify objectives, technical problems, review past research, and plan future research
 - effective linkage to Southern African sorghum/millet network
- Effectively functioning service Oversight Committee established
 - analyzes and plans for the future;
 - facilitates information exchange on research.

Means of Verification

- Government statistics

- Annual Reports
- Attendance at Oversight Committee meetings.
- Attendance at network meetings.
- Reports from country missions.
- Information from SCO, networks, and NARSSs.

Important Assumptions

- Increased allocation of national resources to research and extension.
- Availability of needed inputs and credit
- Incentive price policies.

- All interested parties willing and able to participate
- NARSSs actively participating and eventually willing and able to assume leadership
- IARCs willing to assume leadership roles and operate networks in participatory manner.
- Improved prioritizations of research work by NARSSs through participation in the networks.

Outputs

- An effectively functioning African Coordinating Organization
- SAFGRAD Oversight Committee meets annually.
- Research for each network reviewed and evaluated annually.
- Future research activities identified, planned and allocated among participants.
- In country research implemented by NARSSs.
- Varieties released and cultural practices recommended.
- Responsive technical backstopping by IITA and ICRISAT.
- Network advisory committees meet at least biannually.
- Network priorities are reflected in NARS decision-making.
- Opportunities for future donor support at regional and national levels clarified.

Magnitude of Outputs

- Annual Meetings of Oversight Committee provides guidance for IARCs
- Annual meetings of scientists, monitoring tours and advisory committee meetings.
- Network planned agronomic trials.
- Relevant varieties released in each commodity crop, based upon thorough testing and cultural practices.

- Reports by SCU, IITA, and ICRISAT.

- Monitoring of SAFGRAD and network meetings.

- Visits to and Data from NARSSs

- Visits to and Data from SCU, IITA, and ICRISAT.

- Able leadership in Africa Regional Coordination and network meetings coordinators

- NARSSs willing to review plan, and allocate research responsibilities.

- NARSSs will fund in-country research costs.

- IARCs, CRSPs, and AID directly-managed centrally funded projects will interact responsibly with NARSSs.

- Technologies will be developed, involving improved multi-disciplinary participation and on-farm testing and it will be diffused to farmers.

Inputs

USAID Inputs

SCO - Years 1 & 2 of Project

- Salaries and allowances	\$ 337,641
- Technical assistance	140,000
- Operations	67,200
- Capital	56,200
- ACPDs	350,000

- Reports by SCO and Oversight Committee

- AID funding available
- IITA and ICRISAT continue to be willing to coordinate
- NARSs continue to support project and provide for national program resources

Networks for sorghum, millet maize and cowpeas.

- Salaries and allowances	\$3,203,884
- Operations	3,080,573
- Overhead	492,583
- Capital	145,500

- Reports by IITA, ICRISAT and others.
- Evaluations
- Final reports

Project Management and Long-term Technical Assistance

- Salaries and allowances	\$1,230,000
---------------------------	-------------

<u>Evaluation</u>	\$ 200,000
-------------------	------------

<u>Inflation and Contingency</u>	\$ 281,550
----------------------------------	------------

Country Inputs

National program expenses

Other Donor Inputs

- IFAD
- FAC

55

ANNEX B

USAID SUPPORT TO AGRICULTURAL RESEARCH
IN SAFGRAD COUNTRIES Coastal West Africa

Benin

Research Scientists:
Sorghum and Millet 4
Maize 3
Cowpeas 0

No USAID bilateral support to agricultural research.

Ghana

Research Scientists:
Sorghum and Millet 2
Maize 12
Cowpeas 1

USAID bilateral assistance to agricultural research.

1. Development and Application of Intermediate Technology - Project No. 641-0084 -- research on maize.
2. Managed Inputs and Agricultural Services - Project No. 641-0102 -- research on maize and sorghum.

Guinea

Research Scientists:
No data available

USAID bilateral assistance to agricultural research.

1. Smallholder Preparation - Project No. 675-0204 -- research on maize and sorghum.
2. Smallholder Production - Project No. 675-0210 research on maize and sorghum.

Guinea Bissau

Research Scientists:
No data available

No bilateral USAID support to agricultural research.

NOTE: Numbers of Research Scientists were obtained from a draft document which is subject to updating and revision.

54

Ivory Coast

Research Scientists:
Sorghum and Millet 5
Maize 7
Cowpeas 0

No bilateral USAID support to agricultural research.

Nigeria

Research Scientists:
Sorghum and Millet 30
Maize 31
Cowpeas 2

No bilateral USAID support to agricultural research.

Sierra Leone

Research Scientists:
No data available

USAID bilateral assistance to agricultural research.

1. Adapting Crop Research and Extension - Project No. 636-0102 -- research on rice.
2. Cropping Systems Development - Project No. 636-0170 -- research on maize and cowpeas.

Togo

Research Scientists:
No data available

No bilateral USAID support to agricultural research.

East African Highlands

Ethiopia

Research Scientists:
Sorghum and Millet 4
Maize 6
Cowpeas 2

No USAID bilateral support to agricultural research

55

Kenya

Research Scientists:
Sorghum and Millet 17
Maize 33
Cowpeas and Beans 14

USAID bilateral assistance to agricultural research.

1. Arid and Semi-Arid Development - Project No. 615-0172 -- research on maize and sorghum.
2. Drylands Cropping Systems Research - Project No. 615-0180 -- research on maize and sorghum.
3. On-Farm Grain Storage - Project No. 615-0190 -- research on maize and sorghum.
4. Agricultural Technology - Project No. 615-0229 -- research on maize.

Somalia

Research Scientists:
Sorghum and Millet 9
Maize 6
Cowpeas 0

USAID bilateral assistance to agricultural research.

1. Central Rangelands Development - Project No. 649-0108 -- research on range production.
2. Bey Region Development - Project No. 649-0113 -- research on sorghum and maize.

Sudan

Research Scientists:
Sorghum and Millet 10
Maize 6
Cowpeas 0

USAID bilateral assistance to agricultural research.

1. Blue Nile Integrated Agricultural Development - Project No. 650-0018 -- research on sorghum.
2. Western Agricultural Development - Project No. 650-0020 -- research on sorghum.
3. Southern Agricultural Development - Project No. 650-0046 -- research on sorghum and maize.

Uganda

Research Scientists:
Sorghum and Millet 6
Maize 4
Cowpea 11

No USAID bilateral assistance to agricultural research.

Burundi

Research Scientists:
Sorghum and Millet 2
Maize 5
Cowpeas and Beans 9

USAID bilateral assistance to Agricultural research.

1. Small Farming Systems Research - Project No. 695-0106 -- research on maize, sorghum, cowpeas, and beans.

Rwanda

Research Scientists:
Sorghum and Millet 4
Maize 3
Cowpeas and Beans 3

USAID bilateral assistance to agricultural research.

1. Local Crop Research - Project No. 696-0107 -- research on beans.
2. Cropping Systems Improvement - Project 696-0110 -- research on sorghum, maize, and beans.
3. Food Storage and Marketing II - Project No. 696-0116 -- research on beans.
4. Cropping Systems Improvement - Project No. 696-0123 -- research on sorghum, maize, and beans.

Southern African Plateau

Botswana

Research Scientists:
Sorghum and Millet 4
Maize 0
Cowpeas 2

USAID bilateral assistance to agricultural research.

1. Agricultural Technology Improvement - Project No. 633-0221
-- research on sorghum and cowpeas.

Tanzania

Research Scientists:
Sorghum and Millet 7
Maize 25
Cowpea 13

USAID bilateral assistance to agricultural research.

1. Farming Systems Research - Project No. 621-0156 -- research
on sorghum, maize, and cowpeas.

Zambia

Research Scientists:
Sorghum and Millet 3
Maize 20
Cowpeas 5

USAID bilateral assistance to agricultural research.

1. Agricultural Development Research and Extension -- Project
No. 611-0201 -- research on maize.

Zimbabwe

Research Scientists:
Sorghum and Millet 4
Maize 11
Cowpeas 1

No USAID bilateral assistance to agricultural research.

Sahelian Zone

Burkina Faso

Research Scientists:	
Sorghum and Millet	20
Maize	4
Cowpeas	0

No USAID bilateral assistance to agricultural research.

Cameroon

Research Scientists:	
Sorghum and Millet	5
Maize	5
Cowpeas	0

USAID bilateral assistance to agricultural research.

1. National Cereals Research and Extension - Project No. 631-0013 -- research on maize, sorghum, and millet.
2. National Food Crop Protection - Project No. 631-0024 -- research on maize, sorghum, and millet.
3. National Cereals Research and Extension - Project 631-0052 -- research on maize, sorghum, and millet.

Cape Verde

Research Scientists:
No data available

USAID bilateral assistance to agricultural research.

1. Food Crop Research - Project No. 655-0011 -- research on legumes.

Central African Republic

Research Scientists:
No data available

No USAID bilateral assistance to agricultural research.

Chad

Research Scientists:	
Sorghum and Millet	3
Maize	1
Cowpeas	0

No USAID bilateral assistance to agricultural research.

Gambia

Research Scientists:	
Sorghum and Millet	1
Maize	3
Cowpeas	0

USAID bilateral assistance to agricultural research.

1. Mixed Farming and Resource Management - Project No. 635-0203 -- research on maize, sorghum, and millet.
2. Agricultural Research and Diversification -- Project No. 635-0219 -- research on maize, sorghum, millet, and cowpeas.

Mali

Research Scientists:	
Sorghum and Millet	31
Maize	5
Cowpeas	0

USAID bilateral assistance to agricultural research.

1. Livestock Sector II - Project No. 688-0218 -- research on sorghum.
2. Semi-Arid Tropical Research II - Project No. 688-0226 -- research on sorghum and millet.
3. Farming Systems Research - Project No. 688-0232 -- research on sorghum and millet.
4. Operation Haute Vallee I - Project No. 688-0210 -- research on: No information.
5. Operation Haute Vallee II - Project No. 688-0233 -- research on: No information.

65

Mauritania

Research Scientists:
No data available

USAID bilateral assistance to agricultural research:

1. OMVS - Agricultural Research II - Project No. 682-0957 -- research on sorghum, millet, and cowpeas.
2. Dirol Plain Operation Research - Project No. 682-0934 -- research on: No information - under design.

Niger

Research Scientists:
Sorghum and Millet 6
Maize 0
Cowpeas 0

USAID bilateral assistance to agricultural research.

1. Niger Cereal Research - Project No. 683-0225 -- research on sorghum, millet, and cowpeas.
2. Niamey-Rural Development II - Project No. 683-2040 -- research on sorghum and millet.
3. Irrigation Research and Coordination - Project No. 683-0250 -- under design.

Senegal

Research Scientists:
Sorghum and Millet 11
Maize 4
Cowpeas 0

USAID bilateral assistance to agricultural research.

1. Casamance Regional Development - Project No. 685-0205 -- research on maize and millet.
2. Millet Processing - Project No. 685-0250 -- research on millet.
3. OMVS Agricultural Research III - Project No. 685-0957 -- research on rice.
4. Cereal Production II -- Project No. 685-0235 -- research on millet.

ANNEX C

PRODUCTION OF FOOD GRAINS IN SAFGRAD COUNTRIES
DURING 1983*

Sahel Region

Country	Maize	Sorghum area '000 ha	Millet	Cowpeas
Burkina Faso	105	1,000	900	146
Cameroon	495	480	515	46
Cape Verde				
Cent. African Rep.				
Chad	10	454	1,150	138
Gambia	5	80	35	15
Mali	90	650	1,420	53
Mauritania	7	40	100	58
Niger	14	1,114	1,325	1,578
Senegal	<u>70</u>	<u>45</u>	<u>800</u>	<u>66</u>
Sub-Total	796	3,863	6,245	2,100

Coastal West Africa

Benin	475	90	13	77
Ghana	300	180	150	125
Guinea	40	7	-	55
Guinea Bissau	6	7	80	3
Ivory Coast	630	55	89	12
Nigeria	1,800	5,925	4,070	4,120
Sierra Leone				
Togo	<u>113</u>	<u>90</u>	<u>170</u>	<u>78</u>
Sub-Total	3,364	6,354	4,572	4,470

Eastern Highlands

Ethiopia	820	950	230	493
Kenya	1,720	170	50	270
Somalia	155	160	-	18
Sudan	65	3,500	1,100	76
Uganda	340	230	360	112
Burundi	231	327	54	92
Rwanda				
Sub-Total	3,331	5,337	1,794	1,061

*Source: (FAC, Production Yearbook - 1984-VOL 37

62

Southern Africa

Botswana	35	85	13	30
Tanzania	1,690	350	220	214
Zambia	547	14	20	-
Zimbabwe	<u>1,340</u>	<u>150</u>	<u>286</u>	<u>3</u>
Sub-Total	3,612	599	539	247
GRAND TOTAL	<u>11,103</u>	<u>16,153</u>	<u>13,150</u>	<u>7,878</u>

ANNEX D

ENVIRONMENTAL ASSESSMENT

SEMI-ARID FOOD GRAIN RESEARCH AND DEVELOPMENT PROJECT: PHASE II
698-0452

During the course of the development of the project paper, a full Environmental Assessment was prepared by Dr. George A. Schaefer of Cornell University. It has been approved by the Africa Bureau and is available at USAID/Burkina Faso. The following is a brief summary of the findings and recommendations.

One segment of the SAFGRAD project involves the testing and validation of promising lines of sorghum, millet, maize and cowpeas for use in the semi-arid regions of Africa. All of these crops have pest-related yield constraints that could be offset through the use of pesticides. Their use by the subsistence farmers in the region does not represent a realistic input, however. Research by the contracting IARC's, therefore, emphasizes the development of pest resistant, high-yielding varieties. Pesticides are utilized as a research tool in the maize/cowpea program in Kamboinse and as such, are excluded from the Environmental Assessment (EA). However, selected chemicals are sent out to cooperating countries for use in variety validation of cowpeas and it is the risk potential in this use area that precipitated this pesticide use analysis.

The EA reviewed the list of proposed pesticides and addressed such issues as their regulatory status, efficacy, potential hazards, and suggestions on their use, storage and safety requirements. The following specific actions are needed to bring the pesticide use aspect of this project into conformity with the intent of 22 CFR part 21b on environmental procedures.

A. Only those pesticides so indicated in Table I (attached) are authorized for use within the project.

B. Carbofuran and Phostoxin are sufficiently toxic to restrict their use to those activities for which expertise and supervision are determined adequate to assure safety. At this writing ideal criteria have only been verified to exist within the maize/cowpea component of the project at the Kamboinse Research Station.

C. Pending verification of the registration status of the insecticide deltamethrin and cypermethrin, plants treated with these materials may not be utilized for human or animal consumption.

64

D. Pesticides identified for use subsequent to the preparation of the PP and EA will require amendment of the Grant Agreement and will be subject to the procedures dictated by the regulatory status of the chemical. Actual procurement or use of the materials must be approved, in writing, by the Mission Director and the AID/AFR Bureau Environmental Officer.

E. The above action does not apply where the pesticide(s) will be used as research tools at Kamboinse Research Station under the direct supervision of project personnel. However, adequate information must be available to allow personnel to safely use pesticides.

CONCLUSION

It is the opinion of the author of the Environmental Assessment that limited use of pesticides within the cowpea validation research phase will not have a significant adverse effect on the environment. The long term objectives of the project emphasize the development of pest control methodologies which will suffice in the absence of pesticides. Certainly the potential for the increased availability of a nutritious and stable food supply in the "hunger-belt" of Africa more than off-sets the risks involved in the use of these chemicals. This assumes, however, that the risks associated with the use of these pesticides is reduced to the minimum by the observance of the practices cited above.

5826Y

65

ANNEX E

STATUTARY CHECKLIST

5C(2) PROJECT CHECKLIST

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A. includes criteria applicable to all projects. Part B. applies to projects funded from specific sources only:
B.1. applies to all projects funded with Development Assistance loans, and
B.3. applies to projects funded from ESF.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT

1. FY 1986 Continuing Resolution Sec. 524; FAA Sec. 634A.

Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project.

The Congressional Notification was submitted on 7/24/86 and it expired without objection.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$500,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

(a) Yes. Detailed financial plans, feasibility studies, administrative analyses and implementation plans have been and are included or summarized in the project paper or its annexes. There are no activities that require engineering plan
(b) Yes.

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

No further legislative action required by the grantee international organizations.

4. FAA Sec. 611(b); FY 1986 Continuing Resolution Sec. 501. If for water or water-related land resource construction, has project met the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See AID Handbook 3 for new guidelines.)
- N/A
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?
- This is not a capital assistance project.
6. FAA Sec. 209. Is project susceptible to-execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.
- Yes, the project is appropriate for execution as a regional project and will be implemented as such. Assistance funds agricultural research networking and coordination among participant countries. Thus, it will foster regional cooperation and greater efficiency of use of scarce agricultural research resources.
7. FAA Sec. 601(a). Information and conclusions whether projects will encourage efforts of the country to:
- (a) increase the flow of international trade; (b) foster private initiative and competition; and (c) encourage development and use of cooperatives, and credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.
- a) Project will encourage and facilitate the generation and flow of improved agricultural technology across international borders. This may eventually lead to greater international trade; b) It will provide private distributors with a wider array of agricultural technology to add to their product lines; c) Project does not specifically address these institutions but their greater use will come into play as farm family welfare improves; d) It discourages monopoly by distributing widely all improved technology; e) It will improve technical efficiency in agriculture by developing improved technology and distributing it widely; f) N/A.

8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
9. FAA Sec. 612(b), 636(h); FY 1986 Continuing Resolution Sec. 507. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?
11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?
12. FY 1986 Continuing Resolution Sec. 522. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?
- Private U.S. trade and investment will be encouraged through increased demand for U.S. produced agricultural inputs which will be required for the more productive agriculture.
- This regional project does not require specific contributions from the participating countries nor from the OAU/STRC. However, all participants will make in-kind contributions to the project that include headquarters research facilities and staff.
- The U.S. does not own any excess currency applicable to this regional project.
- Yes.
- The project does not involve commodities for export.

13. FAA 118(c) and (d). Does the project comply with the environmental procedures set forth in AID Regulation 16. Does the project or program take into consideration the problem of the destruction of tropical forests?
- Yes. A detailed Environmental Assessment has been done and approved. The project involves mainly the joint together of national agricultural research systems to work on common problems and to share results. No additional land will be bought into production.
14. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)?
- Although a regional project, several Sahel countries are involved. Technical assistance is provided to ensure that sound accounting and management systems are followed.
15. FY 1986 Continuing Resolution Sec. 533. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution?
- No.
16. ISDCA of 1985 Sec. 310. For development assistance projects, how much of the funds will be available only for activities of economically and socially disadvantaged enterprises historically black colleges and universities, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?
- Technical assistance is provided through two International Agricultural Research Centers which have world recognized expertise in semi-arid food grain research and networking. No funds have been aside specifically for economically and socially disadvantaged enterprises.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance
Project Criteria

a. FAA Sec. 102(a), 111, 113, 281(a). Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status, (e) utilize and encourage regional cooperation by developing countries?

a) Project is aimed at funding improve low-input technologies which are applicable to semi-arid food production on small farms. In this sense, it is exclusively directed to wide participation of the rural poor; b) the project does not address cooperatives directly. To the extent that the project results in greater and more efficient production, cooperatives will have a useful role in marketing, distribution and savings; c) the project encourages commitment to self-help measures by the participating countries will join together in commodity research networks to seek solutions to common production problems. They will share improved technology among all members of the groups as well as ideas on how they can improve their research organizations and capabilities; d) inasmuch as women are active participants in agricultural production, success of the project in introducing improved technology will enhance the productivity and status of rural women; and e) this project is designed to promote regional networking and coordination of research among the 26 participating countries.

11'

- b. FAA Sec. 103, 103A, 104, 105, 106. Does the project fit the criteria for the type of funds (functional account) being used? Yes.
- c. FAA Sec. 107. Is emphasis on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)? Yes.
- d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed country)? N/A as a regional project. Grantees are international organizations.
- e. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth? Analyses done during project preparation show that the project is likely to improve economic and social conditions among the target groups.

f. FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the ~~poor-majority~~?

Yes, project design and monitoring will ensure that it is geared to the needs of small, low-resource farmers.

g. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government.

The project respond to one of the most important needs of people of the participating countries - that of a more reliable, plentiful and nutritious food supply.

The intellectual resources of participating countries are mobilized and developed by their participation in networking activities.

2. Development Assistance Project
Criteria (Loans Only)

a. FAA Sec. 122(b).
Information on conclusion on capacity of the country to repay the loan, at a reasonable rate of interest.

N/A, development assistance grant.

b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

N/A, development assistance grant.

3. Economic Support Fund Project
Criteria

a. FAA Sec. 531(a). Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of part I of the FAA?

N/A

b. FAA Sec. 531(c). Will assistance under this chapter be used for military, or paramilitary activities?

N/A

c. ISDCA of 1985 Sec. 207. Will ESF funds be used to finance the construction of, or the operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified

N/A

that such country is a party to the Treaty on the Non-Proliferation of Nuclear Weapons or the Treaty for the Prohibition of Nuclear Weapons in Latin America (the "Treaty of Tlatelolco"), cooperates fully with the IAEA, and pursues nonproliferation policies consistent with those of the United States?

- d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?

N/A

SC(3) - STANDARD ITEM CHECKLIST

Listed below are the statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. Procurement

1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed? Yes.
2. FAA Sec. 604(a). Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him?? Yes, all procurement will be in compliance with the geographic code authorized by the appropriate official under applicable delegation of authority.
3. FAA Sec. 604(d). If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company? N/A
4. FAA Sec. 604(e); ISDCA of 1980 Sec. 705(a). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in N/A as project will not finance imports of agricultural commodities or products

5. FAA Sec. 604(c). Will construction or engineering services be procured from firms of countries which receive direct economic assistance under the FAA and which are otherwise eligible under Code 941, but which have attained a competitive capability in international markets in one of these areas? Do these countries permit United States firms to compete for construction or engineering services financed from assistance programs of these countries?

No construction anticipated.

6. FAA Sec. 603. Is the shipping excluded from compliance with requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?

No.

7. FAA Sec. 621. If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? If the facilities of other Federal agencies will be utilized, are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

Yes.

Yes. Assistance may be called upon from U.S. Department of Agriculture which is uniquely qualified to provide such technical assistance.

11

8. International Air Transportation Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available? Yes.

9. FY 1986 Continuing Resolution Sec. 504. If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States? Yes.

B. Construction

1. FAA Sec. 601(d). If capital (e.g., construction) project, will U.S. engineering and professional services be used? N/A, as not capital project.

2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? Yes.

3. FAA Sec. 620(k): If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the CP)? Yes.

C. Other Restrictions

1. FAA Sec. 122(b). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter? N/A

2. FAA Sec. 301(c). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? Yes.

3. FAA Sec. 620(h). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? Yes.

4. Will arrangements preclude use of financing:
 - a. FAA Sec. 104(f); FY 1986 Continuing Resolution Sec. 526. (1) To pay for performance of abortions as a method of family planning or to motivate or coerce persons to practice abortions; (2) to pay for performance of involuntary sterilization as method of family planning, or to coerce or provide financial incentive to any person to undergo Yes

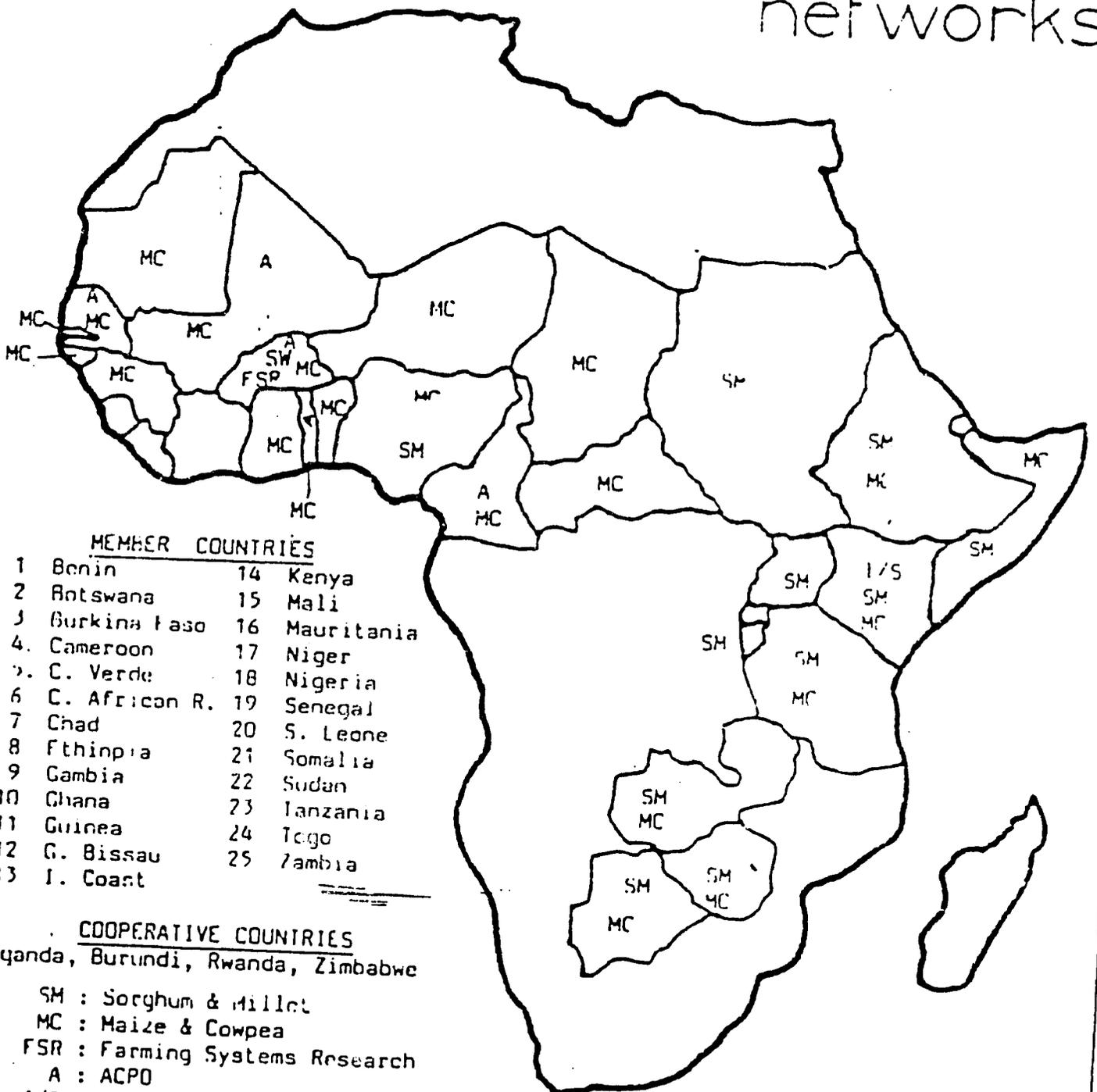
sterilization; (3) to pay for any biomedical research which relates, in whole or part, to methods or the performance of abortions or involuntary sterilizations as a means of family planning; (4) to lobby for abortion?

- b. FAA Sec. 488. To reimburse persons, in the form of cash payments, whose illicit drug crops are eradicated? Yes.
- c. FAA Sec. 620(g). To compensate owners for expropriated nationalized property? Yes.
- d. FAA Sec. 660. To provide training or advice or provide any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? Yes.
- e. FAA Sec. 662. For CIA activities? Yes.
- f. FAA Sec. 636(i). For purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained? Yes.

- g. FY 1986 Continuing Resolution, Sec. 503.
To pay pensions, annuities, retirement pay, or adjusted service compensation for military personnel? Yes.
- h. FY 1986 Continuing Resolution, Sec. 505.
To pay U.N. assessments, arrearages or dues? Yes.
- i. FY 1986 Continuing Resolution, Sec. 506.
To carry out provisions of FAA section 209(d) (Transfer of FAA funds to multilateral organizations for lending)? Yes.
- j. FY 1986 Continuing Resolution, Sec. 510.
To finance the export of nuclear equipment, fuel, or technology? Yes.
- k. FY 1986 Continuing Resolution, Sec. 511.
For the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country ~~contrary to the~~ Universal Declaration of Human Rights? Yes.
- l. FY 1986 Continuing Resolution, Sec. 516.
To be used for publicity or propaganda purposes within U.S. not authorized by Congress? Yes.

SAFGRAD

research
networks



MEMBER COUNTRIES

1	Benin	14	Kenya
2	Botswana	15	Mali
3	Burkina Faso	16	Mauritania
4	Cameroon	17	Niger
5	C. Verde	18	Nigeria
6	C. African R.	19	Senegal
7	Chad	20	S. Leone
8	Ethiopia	21	Somalia
9	Gambia	22	Sudan
10	Ghana	23	Tanzania
11	Guinea	24	Togo
12	G. Bissau	25	Zambia
13	I. Coast		

COOPERATIVE COUNTRIES

Uganda, Burundi, Rwanda, Zimbabwe

- SM : Sorghum & Millet
- MC : Maize & Cowpea
- FSR : Farming Systems Research
- A : ACPO
- I/S : Eastern & Southern Africa Regional Office (Sorghum & Millet)

Fig.1 : CURRENT RESEARCH AND ACPO NETWORKS.

82

ANNEX G

POSITION DESCRIPTION

Senior Agricultural Project Manager

I. General Description

The incumbent of this position serves as the Project Manager for responsible for planning, formulating and assisting implementation of the USAID financed portion of the regional semi-arid food grain research and development program in the SAFGRAD program region of sub Sahara Africa. The officer will consult and deliberate with other donors, the international agricultural research centers, the Scientific, Technical and Research Coordination Unit of the Organization of African Unity (STRC/OAU) and national governments in Africa as well as other AID offices in the SAFGRAD region. The officer will be stationed at Ouagadougou, Burkina Faso.

II. Duties and Responsibilities

The project manager for SAFGRAD will perform the following duties:

1. Provides professional counsel, advice and guidance on program network programs and policy strategies to USAID/Burkina;
2. Consults with other donors, international agricultural research centers, African governments and other agencies as appropriate;
3. Provides counsel, professional advice and guidance on food crops network strategies in formulating programs and policy guidance in the SAFGRAD region.
4. Visits AID Missions, implementation contractors, agencies and institutions in the four ecological zones of Sub-Sahara Africa, to provide professional advice and assistance, to evaluate food production programs, and to secure information and background to promote network development efforts.
5. Monitors AID's project inputs and operations, giving particular attention to the role of each implementing entity and reports to USAID/Burkina on project operations at all levels.

III. Control of Work

The incumbent of this position works under the supervision of and reports to the Agricultural Development Office, (ADO) USAID/Burkina (or his designee within the Office of Agriculture) who provides policy and program guidance. While the incumbent has discretion in carrying out project responsibilities, the work must

be within the framework of USAID) Burkina Faso policies and regulations. The ADO will prepare an annual performance evaluation on the Project Manager and conduct periodic reviews as required to insure satisfactory performance. The Project Manager will report orally to the ADO as well as provide a succinct monthly report. This report should detail progress achieved toward meeting project objectives, targets and identify problem areas.

Also, the report will detail major implementation actions planned for the next 60 days.

IV. Qualifications

The incumbent should hold a PhD degree or MS degree in an agricultural biological sciences and have at least five years of experience in developing countries, preferably in Africa. Preference will be given to candidates having a solid performance record of previously working in regional agricultural research programs either at the international level or at U.S. regional agricultural research institutions. The incumbent must have demonstrated skills in planning, coordinating and monitoring agricultural research.

Previous experience in networking is preferable. Additionally, the incumbent must have proven capabilities of being able to work with foreign nationals and possess skills in written and oral communications. Since the position is primarily one of technical counsel and management, the incumbent must have held senior level positions in agricultural research institutions. Preference will be given to candidates having had previous experience within the International Agricultural Research Centers.

The incumbent must possess a French Language FSI proficiency rating of S-3; R-3.

Vehicles Waiver Justification:

Implementation of the SAFGRAD II Project requires the procurement of 7 vehicles (pick-ups, cars, 4 wheel drive carryalls) . The total cost of the vehicles is estimated at \$145,200. Because a right hand drive vehicle is required in East Africa and because the other six vehicles will be utilized in Burkina Faso, a source/origin waiver from Geographic Code 000 (U.S. Only) to Code 935 (Special Free World); and a waiver of the provisions of Section 636(i) of the FAA are recommended.

Discussion:

A) Source/Origin: In accordance with AID Handbook 1B, procurement of commodities from 935 source or origin requires a waiver. Handbook 1, Supp. B, Chapter 5B 4a(7) states a waiver may be granted if there are "such other circumstances as are determined to be critical to the success of the project. The success of the research projects depends upon the technical assistance and national staff being mobile. As the project is headquartered in Ouagadougou, no United States dealership is available to maintain project vehicles nor to provide spare parts. Such facilities do exist for 935 Code vehicles.

In addition a right - hand drive vehicle is required for the Sorghum-Millet Coordinator who will be stationed in Kenya. The US does not manufacture right-hand drive vehicles. Handbook 1, Supp.B., Chapter 5B4a(2) permit a waiver of source and origin requirements if the commodity is not available from the authorized code.

B) Waiver of Section 636 (i):

In addition to the general source/origin limitations on the procurement of commodities, Section 636 (i) of the FAA prohibits the procurement of vehicles of non-U.S. manufacture. However, the provisions of Section 636 (i) may be waived when special circumstances permit it. Under Handbook 1, Supp. B, Chapter 4C2d (1) (b), special circumstances are deemed to exist if there is "present or projected lack of adequate service facilities and supply of parts for U.S.-manufactured vehicles.

Since there is an inability to provide service and parts for U.S.-manufactured vehicles and this capability now exists only for vehicles of Code 935 origin, the special circumstances criterion set forth above is satisfied.

Therefore, a waiver of the provisions of 636(i) of the Foreign Assistance Act, as amended, and a vehicle procurement source/origin waiver from Code 000 to Code 935 is requested under this project. AA/AFR approval is given by signing the project authorization.

Recommendation: That the AA/AFR sign the project authorization to (1) approve the requested waiver to permit the procurement of vehicles of Code 935 source and origin; (2) waive the requirements of Section 636(i) to permit the procurement of vehicle of non-U.S. manufacture; and (3) certify that "Exclusion of procurement from Free World countries other than the cooperating country and countries included in Code 941 would seriously impede attainment of U.S. foreign policy objectives and objectives of the foreign assistance program.

86

ANNEX I

July 30, 1986

FILE

HUMAN RIGHTS PROCEDURES MEMORANDUM

TO: HA, L. Arthur Rm 7802NS
FROM: AID/AFR/TR/PRO, ~~Jerry Wood~~ Arlan McStrawn Rm 78765
SUBJECT: Human Rights Clearance

The following project:

TITLE: Semi-Arid, Food Grains Research and Development II
NUMBER: 698-0452
COUNTRY: Africa Regional *
AMOUNT: \$9,800,000

is to be authorized in AID/W. This project was not among those reviewed by the Working Group in December, 1985. The appropriate materials are attached.

HA concurrence is requested. If we are not notified within 7 days, we will assume concurrence.

* Participating countries: Benin, Botswana, Burkina Faso, Cameroon, Cape Verde, C.A.R., Chad, Ethiopia, Gambia, Ghana, Guinea, G. Bissau, Ivory Coast, Kenya, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Uganda, Zambia

TO AID/AFR/TR/PRO, Rm 4533NS

FROM: HA

- Proceed with authorization
 Request hold authorization pending further review

Louise Stanley
Signature
Aug. 6, 86
Date

cc: PPC/PLPR
Rm 3394NS

ANNEX J

Oversight Committee

The Oversight Committee will be composed of five members who are active as national agricultural research administrators, prominent scientists conducting research, or university faculty serving as agriculture school administrators and scientists. The role to be played by an Oversight Committee is as follows:

- o to provide guidance in management and policy issues of SAFGRAD;
- o to review work plans and provide guidance on how SAFGRAD could provide effective technical services to national research programs of member countries;
- o to facilitate the realization of food grain and related networks administered by scientists of participating countries;
- o to review annual technical progress of the network resident research, ACPO and other SAFGRAD activities to ensure further financial support.

Selection of Oversight Committee

The SAFGRAD Coordination Office will undertake major responsibility for organizing a procedure to select Oversight Committee members. The design team believes the process should begin with the SAFGRAD Coordination Office sending a letter to all 26 directors of the National Agricultural Research Systems of the SAFGRAD member countries. This letter will set forth criteria for nominating members to the Oversight Committee and will request each director to send their response to the SCO. The criterion will include such standards as being an active scientist or research administrator, geographical location, language, etc.

The second step is for the SCO to convene a meeting of all 26 directors of the NARSs. During the NARS meeting, the International Coordination Officer will designate an ad hoc committee of five NARS directors to screen all nominations received according to the prescribed criteria and select 12 nominees for a short list. The short list will then be presented to the meeting of NARS directors who will make final selection of five members. The terms of service on the Oversight Committee will be staggered to ensure continuity on the Committee. The Oversight Committee will select its own chairman and secretary.

ANNEX ~~2~~

PID APPROVAL MESSAGE

UNCLASSIFIED
Department of State

OUTGOING
TELEGRAM

PAGE 01 OF 02 STATE 28854
ORIGIN AID-00

4624 00016 AIB3013

STATE 28854

4624 00016 AIB3013

DEVELOPED. TENTATIVELY, DOLS 750,000 HAVE BEEN IDENTIFIED FOR THIS PURPOSE.

ORIGIN OFFICE AFRA-07
INFO AFRV-04 A/CV-03 A/DP-06 A/DR-06 A/DA-01 AGR1-01 RELO-01
RST-01 /020 A1 100

INFO LOG-00 AF-00 EB-04 /004 R

DRAFTED BY: AID/AFR/BA:REGRAY/WHELHAN:JO/44577
APPROVED BY: AID/AFR/OAA:ARLOVE
AID/AFR/BA:JSLATTERY (DRAFT) AID/AFR/SMA:VSAULTERS
AID/AFR/DP:PFEURET AID/AFR/PO:CHAZEL (DRAFT)
AID/AFR/BA:VSHERVIN AID/AFR/TR:CHARTIN

-----20510 002572 /38

P R 090252Z JUL 85
FM SECSTATE WASHDC
TO AMEMBASSY OUAGADOUGOU PRIORITY
INFO AMEMBASSY ABIDJAN
AMEMBASSY BAKAR
AMEMBASSY BAHARO

UNCLAS STATE 28854

AIDAC ABIDJAN FOR REDSO/WCA

E.O. 12356: N/A
TAGS:
SUBJECT: SAFGRAB PHASE II (000452) PROJECT PAPER
GUIDANCE

1. AN ECPR ON MAY 22, 1985, CHAIRED BY OAA RAY LOVE APPROVED THE SAFGRAB PID FOR DOLS 17.9 MILLION AND AUTHORIZED AFR/BA AND USAID/OUAGADOUGOU TO PROCEED WITH PROJECT PAPER DESIGN. THIS CABLE IS FOR THEIR GUIDANCE IN PROJECT PREPARATION.
2. EMPHASIS ON PID AND IN PROJECT PAPER WILL CONTINUE TO BE ON STRENGTHENING NATIONAL AGRICULTURAL RESEARCH SYSTEMS WITHIN THE SAFGRAB PARTICIPATING COUNTRIES. THE PROJECT PURPOSE OF (A) ENABLING THE OAU/STRC COORDINATION UNIT AND THE SAFGRAB ADVISORY BODIES TO CARRY OUT THE PLANNING, PRIORITIZATION AND COORDINATION NEEDED TO BUILD AGRICULTURAL RESEARCH NETWORKS, AND (B) TO ENABLE SELECTED NATIONAL RESEARCH CENTERS TO CONDUCT RESEARCH ON THE FOUR CROPS TO FACILITATE THE NETWORKING THROUGHOUT THE SAFGRAB ZONE, WILL BE THE PRINCIPAL IDEA IN PROJECT DESIGN.
3. ILLUSTRATIVE PROJECT BUDGET BY INPUTS CONTAINS ELEMENTS IN DOLS 000'S FOR:
 - A. TECHNICAL ASSISTANCE: DOLS 9,450; B. COMMODITIES - DOLS 1,450; C. SHORTTERM TRAINING - DOLS 750; D. LOGISTICAL SUPPORT - DOLS 4,250; E. EVALUATION - DOLS 400; F. CONSULTANTS DOLS 300; G. PROJECT SUPPORT (PAAJ) - DOLS 1,300. TOTAL AID PROPOSED FUNDING - DOLS 17,300.
4. APPROVED PID BEING POUNCHED FROM AID/WASHINGTON O/A.S. JULY.
 - A. USAID AND SAFGRAB WILL NOTE THAT LONG-TERM TRAINING WILL NOT BE FINANCED UNDER THIS PROJECT. EFFORTS MUST BE MADE BY SAFGRAB AND NATIONAL PROGRAM REPRESENTATIVES TO SECURE LONG-TERM TRAINING NEEDS THROUGH BILATERAL OR OTHER TRAINING PROGRAMS INCLUDING AID PROJECTS (ANEP AND SPOI).
 - B. SHORTTERM TRAINING WILL BE FUNDED THROUGH IITA AND ICRISAT AS PART OF THEIR SUPPORT GRANTS TO BE

C. THE PID APPROVES DEVELOPMENT OF A PROJECT WITH CONTINUED SUPPORT FOR SELECTED ACPOS (E.G. TWO COUNTRIES FOR UP TO TWO YEARS). THIS WILL ALLOW TIME FOR NATIONAL RESEARCH PROGRAMS OR OTHER DONORS TO ASSURE FINANCIAL AND OTHER SUPPORT OF ACPOS IF IT IS DETERMINED BY THE CONCERNED NATIONAL PROGRAM THAT THE ACPO PROGRAM MERITS CONTINUED SUPPORT.

5. ISSUES AND MATTERS TO RECEIVE SPECIAL ATTENTION DURING PP DESIGN.

A. LOCATION OF RESEARCH. THE ECPR CONSIDERED THE LOCATION OF SAFGRAB RESEARCH IN DETAIL. THE FACT THAT NEITHER THE MAIZE/COWPEA NOR CORNHORN RESEARCH IN WEST AFRICA IS PROPOSED FOR LOCATION IN A TECHNOLOGY GENERATING COUNTRY AS DEFINED IN THE AFR PLAN FOR SUPPORTING AGRICULTURAL RESEARCH AND FACILITIES OF AGRICULTURE IN AFRICA WAS THE PRINCIPAL ISSUE DISCUSSED AT THE ECPR. THE ECPR DETERMINED THAT DIALOGUE SHOULD BE INTENSIFIED BETWEEN AFR/BA AND AFR/TR AND POTENTIAL SAFGRAB RESEARCH SUPPORT COUNTRIES TO HAVE AS MUCH INFORMATION AS POSSIBLE FOR THE PROJECT PLANNING TEAM. THE QUESTION IS WHERE THE GREATEST RETURNS FROM AID-FINANCED SAFGRAB-SUPPORTED RESEARCH CAN BE OBTAINED CONSIDERING THE ANTICIPATED 10-15 YEAR PROGRAM LIFE OF SAFGRAB. THE AGRICULTURAL RESEARCH INSTITUTIONS OF

SENEGAL, MALI AND BURKINA WILL BE REVIEWED BY THE PP DESIGN TEAM TO DETERMINE THEIR TECHNOLOGY GENERATION POTENTIAL. THE ECPR RECOGNIZED THAT THESE ARE MANY FACTORS TO CONSIDER IN SELECTING SITES FOR SAFGRAB-SUPPORTED RESEARCH. THESE INCLUDE TECHNICAL CONSIDERATIONS, RECOMMENDATIONS OF OAU/STRC AND SAFGRAB ADVISORY BODIES, RECOMMENDATIONS OF OTHER DONORS, COSTS, COUNTRY RECEPTIVENESS AND GOVERNMENT SUPPORT, AND USAID SUPPORT AND RECOMMENDATIONS. THE PP DESIGN TEAM WILL BE ASKED TO CONSIDER THE EXISTING AND ALTERNATIVE SITES BASED ON THESE FACTORS AND THE DIALOGUE WHICH IS DESCRIBED ABOVE.

- B. THE PP SHOULD SET OUT CLEAR PERFORMANCE TARGETS AND SHOULD PROVIDE BENCHMARKS TO MEASURE PERFORMANCE BY SAFGRAB, GRANTEES, CONTRACTORS AND PARTICIPATING COUNTRIES. IN THIS REGARD FOUR STEPS SHOULD BE FOLLOWED:

-- (1) AT NATIONAL LEVELS, SCARCER RESEARCH RESOURCES SHOULD BE ALLOCATED MORE EFFECTIVELY AND RESEARCH ON SEMI-ARID CROPS SHOULD CONVERGE WITH REGIONAL OBJECTIVES FOR THESE CROPS. THE DESIGN TASK IS TO DETERMINE HOW THESE ACTIVITIES ARE TO BE CARRIED OUT AND HOW PERFORMANCE IS TO BE MEASURED.

- (2) A COMPLEMENTARY DESIGN TASK IS TO DESCRIBE WHAT RESEARCH RESULTS HAVE BEEN ACHIEVED IN EACH OF THE COMMUNITY AREAS DURING SAFGRAB I.

- (3) THE DESIGN TEAM SHOULD INDICATE WAYS BY WHICH SAFGRAB'S TECHNICAL ADVISORY COMMITTEE (TAC) AND CONSULTATIVE COMMITTEE (CC) CAN BE MORE EFFECTIVE. THE REACH AND IMPACT OF THESE BODIES DEPENDS HEAVILY ON THE RELATIONS THEY CAN ESTABLISH WITH NATIONAL RESEARCH INSTITUTIONS, DONORS AND THE SCIENTIFIC COMMUNITY. AGAIN BENCHMARKS SHOULD BE ESTABLISHED TO EVALUATE PERFORMANCE.

-- (4) THE DESIGN TEAM MUST POINT OUT HOW EFFECTIVE NETWORKING IS TO BE ACHIEVED AND SUSTAINED. REALISTIC

UNCLASSIFIED
Department of State

OUTGOING
TELEGRAM

PAGE 22 OF 82 STATE 208054
TARGETS AND TASKS, ACHIEVABLE STEPS AND VERIFIABLE
INDICATORS ARE ELEMENTS OF AN EFFECTIVE NETWORK.

4624 080816 A103913

STATE 208054

4624 080816 A103913

SAFCRAD II.

C. INSTITUTIONAL CONCERNS: RELATED TO THE FOUR TASKS ABOVE THE DESIGN TEAM SHOULD RECOMMEND WAYS TO HOLD OAU/STRC STAFF MEMBERS TO A MINIMUM WHILE MAINTAINING A RIX OF STAFF THAT PROVIDES SUPPORT FOR ADMINISTRATIVE AND LOGISTICAL EFFECTIVE PROJECT FOR IMPLEMENTATION. IN THIS CONNECTION, PERFORMANCE

PARAMETERS FOR MEASURING EFFECTIVENESS OF STAFF AND OTHER ELEMENTS OF OAU/STRC SUPPORT SHOULD BE BUILT INTO PHASE II OF THE PROJECT.

D. OTHER CONCERNS:

- (1) THE TEAM SHOULD MAKE RECOMMENDATIONS ON WHETHER MORE BASIC RESEARCH IS NEEDED, HOW TO STRIKE A BALANCE AMONG VARIETAL RESEARCH, PROBLEM SOLVING ON NATIONAL RESOURCE UTILIZATION AND OTHER COMPLEMENTARY WORK, AND WHETHER RESEARCH IS DIRECTED ONLY TO SMALLHOLDER FARMERS. WHILE SUCH CONCERNS ARE SUBSUMED WITHIN THE MASTER RESEARCH PLAN BEING DONE BY SAFCRAD, THE DESIGN NEEDS TO TAKE AN INDEPENDENT LOOK AT THESE KINDS OF CONCERNS.

- (2) IF REGIONALLY SUPPORTED RESEARCH THROUGH NATIONAL CENTERS OPERATES IN ONLY THREE OF THE 26 SAFCRAD COUNTRIES, ARE THE DESIGN OBJECTIVES FOR REGIONAL LINKAGES REALISTIC? IN THIS REGARD, THE DESIGN TEAM NEEDS TO LOOK CAREFULLY, TOO, AT WHAT THE LIMITATIONS ARE TO EFFICIENCIES OF EFFORT IN THE CONTEXT OF PRESENT NATIONAL RESEARCH OPERATIONS (SHARING RESEARCH KNOWLEDGE, NOT DUPLICATING EFFORT, ETC.).

-- (3) TO WHAT EXTENT, IF ANY, SHOULD SAFCRAD II BE CONCERNED WITH IMPROVEMENT OF THE PERFORMANCE OF NATIONAL INSTITUTIONS AND HOW WOULD SUCH CONCERN BE REFLECTED IN THE PROJECT DESIGN? IN BENCHMARKS? SINCE ACPOS WILL NOT BE SUPPORTED BY AID IN SAFCRAD II, HOW DOES THE PROJECT ADDRESS CAPACITY OF THE COUNTRIES TO EXERCISE OVERSIGHT OF DEMONSTRATION TRIALS? (THE PID TALKS ABOUT SEMINARS, CONFERENCES AND EXCHANGES OF INFORMATION ONLY). WHAT IMPLICATION DO THE CONCLUSIONS HERE HAVE FOR THE QUOTE OUTREACH UNQUOTE FUNCTIONS, IF ANY, WHICH ARE TO BE ACCOMPLISHED BY THE SPECIFIC FOOD CROP NETWORKS?

-- (4) CENTRAL DESIGN CONCERN IS HOW TO BROADEN THE BASE FOR DONOR SUPPORT OF SEMI-AID FOOD CROP RESEARCH. THE DESIGN TEAM WILL NEED TO DEVELOP A VIEW OF HOW TO ADDRESS THIS CONCERN IN ATTRACTING SUPPORT FOR QUOTE NETWORKING UNQUOTE ELEMENTS (IAC/CS, OAU/STRC, IARCS, TRAINING, ETC.) AND FOR NATIONAL INSTITUTIONS. THIS DEVELOPMENT, HOWEVER, WILL BE CRITICALLY DEPENDENT UPON THE APPRAISAL OF THE OAU/STRC'S INSTITUTIONAL CAPACITY AS WELL AS THE APPRECIATION OF PRESENT DONOR ATTITUDES REGARDING SUPPORT FOR AGRICULTURAL RESEARCH. THE DESIGN WILL NEED TO DEVELOP CRITERIA FOR PERFORMANCE IN

ATTRACTING DONOR SUPPORT AND BENCHMARKS FOR MEASURING SUCCESS.

-- (5) FINALLY, THE PID DOES NOT LOOK AT ALTERNATIVES TO CONTINUED SUPPORT OF THE SAFCRAD NETWORKS; THIS SHOULD BE DONE IN THE PP. ALSO THE PP MUST INCLUDE A SECTION DESCRIBING WHAT RESEARCH RESULTS HAVE BEEN ACHIEVED IN EACH OF THE COMMODITY AREAS THROUGH SAFCRAD I SUPPORT AS WELL AS ANTICIPATED ACCOMPLISHMENTS BY COMMODITY WITHIN A 5 AND 10 YEAR TIME FRAME UNDER

E. PROJECT MANAGEMENT: THE ECPR RECOGNIZED THAT THE REDUCTION IN THE NUMBER OF PROJECT ELEMENTS WILL REDUCE THE MANAGEMENT BURDEN OF BOTH AID AND THE OAU/STRC FOR SAFCRAD II AS COMPARED TO SAFCRAD I. THE ECPR DETERMINED THAT AS MUCH OF THE AID MANAGEMENT ROLE AS POSSIBLE SHOULD BE MAINTAINED IN THE FIELD. AID PRIOR TO PP TEAM DEPARTURE SHOULD DEVELOP ESTIMATES OF MANAGEMENT REQUIREMENTS AND ALTERNATIVES OF HOW THIS MIGHT BE PROVIDED. FOR EXAMPLE, ONE ALTERNATIVE MIGHT BE FOR THE OAU/STRC TO PROVIDE OVERSIGHT OF SUBGRANTEES. THE POSSIBILITY OF MOVING MAJOR PROJECT RESPONSIBILITIES TO REDSO/VCA WAS ALSO DISCUSSED AS WAS THE ROLE OF ICRISAT AND IITA IN DEVELOPING THE NETWORKS. THE PP DESIGN TEAM WILL INVESTIGATE THESE ALTERNATIVES. THE SCOPE OF WORK FOR THE PP DESIGN TEAM WILL CONTAIN A SECTION TO LOOK AT THE AID MANAGEMENT ISSUE BASED ON THE BEST INTERNAL INFORMATION AVAILABLE AT THAT TIME. ARRACOST

90

Annex L
Procurement Plan:

I. Responsibilities:

A. OAU/STRC:

USAID/Burkina will make a grant for two years to the OUA/STRC Executive Secretariat based in Lagos, Nigeria to provide support services to the OAU/STRC SAFGRAD Coordination Office (SCO) located in Ouagadougou, Burkina Faso.

Host country contracting on the part of the OAU/STRC SCO for project commodities is not anticipated other than small value procurement for office supplies. These commodities are available locally and will be procured by the SCO as shelf-items. The SCO is responsible for receipt, inventory, distribution and maintaining proper accountability of all commodities procured.

B. International Agricultural Research Centers (IARCs):

Direct grants will be let by USAID/Burkina to two International Agricultural Research Centers: the International Institute for Tropical Agriculture (IITA), and the International Crop Research Institute for the Semi-Arid Tropics (ICRISAT). IITA is located in Ibadan, Nigeria while ICRISAT is based in Hyderabad, India. Both the IARCs will be responsible for procurement of commodities for their respective grants. It is currently estimated that approximately \$350,000 worth of various types of equipment to be used for research purposes and to support the research staffs of the IARCs will be procured by the IARCs. Funding for this equipment will be earmarked within IITA and ICRISAT's respective grants, and each organization will be responsible for the procurement actions. Each IARC will, likewise, be responsible for following FAR and AIDAR regulations in procuring the commodities under their grants as specified within the Standard Provisions included in their grant documents. In such cases as a waiver may be required for the procurement of commodities not having a Geographic Code 000 source and origin, USAID/Burkina will be proper authority to approve a necessary source/origin waiver from 000 to the appropriate Geographic Code.

Host country contracting for commodities is not anticipated other than small value procurement for equipment to, likewise be used for agricultural research purposes. These commodities

are available locally and will be procured by each IARC as self-items. IITA and ICRISAT will be responsible for receipt, inventory, distribution and maintaining proper accountability of all commodities procured.

C. USAID/Burkina:

The Project Manager, USAID/Burkina, is responsible for initiating procurement actions in coordination with the SCO and/or the particular IARC. Contracting for project commodities and technical services other than explained above will be undertaken by USAID/Burkina. The principal procurement actions for the Phase II project will be the letting of grants to the International Institute for Tropical Agriculture (IITA) and the International Crop Research Institute for the Semi-Arid Tropics (ICRISAT) and contracting for technical assistance. As both of the IARC grants will exceed the Mission's granting authority, the grants will be negotiated by REDSO/WCA Regional Contracts Officer. The individual contracts for technical assistance will be within the Mission's contracting authority.

USAID/Burkina will contract for the technical assistance required for the project. One long-term technical assistance position is anticipated: a Senior Agricultural Advisor to the SCO. The Senior Agriculturalist will be contracted via a personal services contract (PSC) or PASA mode. USAID/Burkina will prepare a full PIO/T for this position. As the value of this contract will be within the Mission's contracting authority, the Mission can contract directly with assistance from REDSO/WCO or AID/W if required.

Short-term technical assistance will also be required for a review of the SAFGRAD Accelerated Crop Production Officer (ACPO) program to be undertaken early in year two of the project. The proposed contracting mode will be through an Indefinite Quantity Contract IQC. USAID/Burkina will prepare the PIO/T and request REDSO/WCA or AID/W SER/AAM to negotiate the contract.

Procurement of project commodities and technical services by USAID/Burkina will constitute AID-direct contracting, and, therefore, be carried out in accordance with the Federal Acquisition Regulations (FAR) and AID Acquisition Regulations (AIDAR) which became effective in April, 1984.

II. Commodity Procurement:

A. AID-Direct Procurement:

A portion of the proposed project commodities will be procured using AID-direct contracting procedures. Of largest significance, the Mission will procure project vehicles (two passenger, four four-wheel drive and one minibus). Procurement will be in accordance with FAR and AID Handbook 14. In those instances where a contract will exceed the contracting authority of USAID/Burkina, the contract will be executed by REDSO/WCA, AID/W or an ad hoc delegation of authority will be granted to USAID/Burkina.

For small value procurements under \$25,000, purchase orders will be used. If necessary, fixed price supply contracts will be used for commodity procurements in excess of the small value limitation.

PIO/Cs will be prepared in accordance with Handbook 15 Appendix D for all procurements in excess of \$2,500.

B. Procurement Services Agent (PSA):

The PSA will be obtained through on AID/W Indefinite Quantity Contract (IQC). The PSA will undertake procurement of four microcomputers and other miscellaneous equipment not available locally.

To obtain IQC procurement services, a complete, approved PIO/C is forwarded to AID/W, SER/AAM/SCT. The PIO/C must specify that an IQC is to be utilized. AID/W will then identify the specific PSA to be utilized and negotiate the fixed fee. The PIO/C will include a complete list of commodities giving description (or reference a catalog number), quantity and estimated cost. For budgeting purposes, the PSA fee should be based on 8% of the FAS.

Procurement rules and regulations concerning competition, source and origin, shipping, insurance and marking requirements will be observed in conformance with applicable AID Handbooks.

C. Self-Item Procurement:

Most of the procurements under the project will be local cost procurement of such items as office supplies and miscellaneous equipment used for research purposes. Procurement using the shelf-item rules will be in accordance with Handbook 1, Supplement B, Chapter 18.

Prices paid for locally procured commodities will be no more than the lowest available competitive prices, and purchases will be in accordance with good commercial practices. Commodities on the local market from non-Free World countries are not eligible for AID financing. Invoices for payment should state the source and origin of locally purchased materials if such a requirement is practicable. Vehicles are not eligible items under the shelf-item rule.

D. Commodity Eligibility:

All commodities intended for procurement as part of the project are eligible for AID financing and will be procured only from AID Geographic Code 941 except for items designated for shelf-item procurement or which have an approved source/origin waiver.

E. Transportation and Insurance:

Commodities will be procured on a CIF, Ouagadougou, basis. Commodities will be shipped on U.S. flag carriers unless a transportation waiver has been approved. While some commodities may be delivered by sea freight, a number of items, particularly those procured by the PSA in the U.S. i.e., microcomputers; will be delivered by air freight. This decision was based on the nature of the commodities and the need to receive the commodities in the earlier portion of the project.

Marine insurance will be placed in AID Geographic Code 000 (U.S. only). Customs clearance and documentation requirements are established and have been used under other projects.

III. Waivers:

One source/origin waiver is required for the vehicles to be purchased under the project. Additional waivers which may become necessary will be prepared for the approval of the Director, USAID/Burkina. Presently, there is no service or maintenance support in Burkina for U.S.-manufactured vehicles. Since the dollar value of this waiver will exceed \$50,000, the approval authority is the AA/AFR.

Annex M
DETAILED BUDGETS

ANNEX M

SAFGRAD COORDINATION OFFICE BUDGET

OUAGADOUGOU, BURKINA FASO

Components	Year 1	Year 2	Total
A. Salaries & Allowances			
International Staff (2)	70,568	73,164	143,732
Locally Recruited Staff (7)	35,385	37,154	72,539
Fringe Benefits	34,964	36,405	71,370
Severance/Repatriation Costs		50,000	50,000
Sub-Total	140,917	196,723	337,641
B. Operations			
Travel	32,000	35,200	67,200
Meetings of Network Coordinators & SCO Senior Staff	6,000	6,000	12,000
Oversight/Sponsoring Group Meetings	30,000	30,000	60,000
National Agr. Research Directors' Meetings	45,000		45,000
Publications	10,000	10,000	20,000
Fuel, Maintenance and Insurance	15,000	17,000	32,000
Communications	15,000	16,500	31,500
Supplies	4,455	4,785	9,240
Reproduction & Printing	15,000	15,000	30,000
OAU/STRC/Lagos Official Travel to Ouaga	12,000	12,000	24,000
Office Maintenance	5,000	6,000	11,000
Sub-Total	189,455	152,485	341,940
C. Capital			
Office Equipment & Furnishings	30,000	5,000	35,000
Vehicles	1,200	20,000	21,200
Sub-Total	31,200	25,000	56,200
Grand Total	361,572	374,208	735,781

96

WEST AFRICA SORGHUM

COLLABORATIVE RESEARCH NETWORK BUDGET

Component	Research Year 1	R e s e a r c h N e t w o r k					Network Total	Grand Total
		Year 1	Year 2	Year 3	Year 4	Year 5		
A. Salaries & Allowances								
Professional Staff								
Coordinator		85,000	89,250	93,713	98,398	103,318	469,679	469,679
Agronomist	85,000						0	85,000
Support Staff								
Technical	14,800	8,000	8,380	8,800	9,240	9,500	43,920	58,720
Administrative		30,000	31,500	33,080	34,730	36,470	165,780	165,780
Sub-Total	99,800	123,000	129,130	135,593	142,368	149,288	679,379	779,179
B. Operational								
Travel (Int'l/Local)	15,000	15,000	16,500	18,150	19,970	21,960	91,580	106,580
Vehicle O & M		6,000	6,600	3,630	4,000	4,400	24,630	24,630
Regional Workshops/ Monitoring Tours		40,000	40,000	40,000	40,000	40,000	200,000	200,000
Advisory Committee		20,000	20,000	20,000	20,000	20,000	100,000	100,000
Communications		10,000	11,000	12,100	13,310	14,640	61,050	61,050
Research (include labor)	11,000	4,000	4,500	5,000	5,500	6,000	25,000	36,000
Office Supplies		5,000	5,000	5,000	5,000	5,000	25,000	25,000
Lab Supplies		4,000	2,000	2,000	2,000	2,000	12,000	12,000
Network Support		12,000	12,000	12,000	12,000	12,000	60,000	60,000
Workshops			20,000		20,000		40,000	40,000
Publications/Reproduction				10,000	10,000	10,000	30,000	30,000
Sub-Total	26,000	116,000	137,600	127,880	151,780	136,000	669,260	695,260
C. Overhead	14,970	18,450	19,370	20,339	21,355	22,393	101,907	116,877
D. Capital								
Field/Lab Equipment	5,500						0	5,500
Office Equipment	5,000		5,000				5,000	10,000
Household Equipment	10,000	10,000					10,000	20,000
Micro Computer			10,000				10,000	10,000
Vehicle	14,000		14,000				14,000	28,000
Sub-Total	34,500	10,000	29,000	0	0	0	39,000	73,500
Annual Component Total	175,270	267,450	315,100	283,811	315,503	307,681	1,489,545	1,664,815

16

EAST AFRICA SORGHUM/MILLET

COLLABORATIVE RESEARCH NETWORK BUDGET

Component	Research	Research Network				Network	Grand	
	Year 1	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Total
A. Salaries & Allowances								
Professional Staff								
Coordinator		85,000	89,250	93,713	98,398	103,318	469,679	469,679
Agronomist	85,000						0	85,000
Support Staff								
Technical	14,800	8,000	8,380	8,800	9,240	9,740	44,160	58,960
Administrative		18,000	18,900	19,850	20,840	21,880	99,470	99,470
Sub-Total	99,800	111,000	116,530	122,363	128,478	134,938	613,309	713,109
B. Operational								
Travel (Int'l/Local)	15,000	15,000	16,500	17,180	18,380	19,660	86,720	101,720
Vehicle O & M		6,000	6,600	3,440	3,680	3,930	23,650	23,650
Regional Workshops/ Monitoring Tours		32,000	34,240	36,640	39,200	41,940	184,020	184,020
Advisory Committee		10,000	10,000	10,000	10,000	10,000	50,000	50,000
Communications		10,000	10,700	11,450	12,250	13,110	57,510	57,510
Research (include labor)	11,000	15,000	4,300	4,600	4,910	5,200	34,010	45,010
Office Supplies		5,000	5,350	5,720	6,120	6,550	28,740	28,740
Lab Supplies	2,500	5,000	2,860	3,060	3,280	3,500	17,700	20,200
Network Support		6,000	6,000	6,000	6,000	6,000	30,000	30,000
Workshops			10,000		10,000		20,000	20,000
Publications/Reproduction				10,000	10,000	10,000	30,000	30,000
Sub-Total	28,500	104,000	106,550	108,090	123,820	119,890	562,350	590,850
C. Overhead	14,970	16,650	17,480	18,354	19,272	20,241	91,996	106,966
D. Capital								
Field/Lab Equipment	10,000						0	10,000
Office Equipment		5,000					5,000	5,000
Household Equipment	4,000	4,000					4,000	8,000
Micro Computer		10,000					10,000	10,000
Vehicle		16,000					16,000	16,000
Sub-Total	14,000	35,000	0	0	0	0	35,000	49,000
Annual Component Total	157,270	266,650	240,560	248,807	271,570	275,069	1,302,655	1,459,925

88

MAIZE COLLABORATIVE RESEARCH NETWORK BUDGET

Component	Research Year 1	R e s e a r c h N e t w o r k					Network Total	Grand Total
		Year 1	Year 2	Year 3	Year 4	Year 5		
A. Salaries & Allowances								
Professional Staff								
Breeder/Coordinator		92,000	96,600	101,430	106,502	111,827	508,358	508,358
Agronomist	92,000							92,000
Soil/Water Management	92,000							92,000
Support Staff								
Technical	46,360	8,000	7,920	6,270	4,530	4,530	31,250	77,610
Administrative		45,000	47,250	33,080	34,730	36,470	196,530	196,530
Sub-Total	230,360	145,000	151,770	140,780	145,762	152,827	736,138	966,498
B. Operational								
Travel (Int'l/Local)	40,000	20,000	21,978	23,000	24,150	25,360	114,488	154,488
Vehicle O & M	20,000	10,000	10,000	3,630	4,000	4,400	32,030	52,030
Regional Workshops/ Monitoring Tours		35,000	35,000	35,000	35,000	35,000	175,000	175,000
Advisory Committee		20,000	20,000	20,000	20,000	20,000	100,000	100,000
Communications		15,000	16,500	18,150	19,970	21,960	91,580	91,580
Research (include labor)	71,600	10,000	10,000	10,000	10,000	10,000	50,000	121,600
Office Supplies	25,000	9,000	9,000	9,000	9,000	9,000	45,000	70,000
Lab Supplies	43,000	5,000	5,000	5,000	5,000	5,000	25,000	68,000
Network Support		12,000	12,000	12,000	12,000	12,000	60,000	60,000
Workshops			10,000	10,000	10,000	10,000	40,000	40,000
Publications/Reproduction				10,000	10,000	10,000	30,000	30,000
Sub-Total	199,600	136,000	149,478	155,780	159,120	162,720	763,098	962,698
C. Overhead	34,554	21,750	22,766	21,117	21,864	22,924	110,421	144,975
D. Capital								
Field/Lab Equipment	44,000							44,000
Office Equipment (Computer)	10,000		10,000				10,000	20,000
Household Equipment	5,000		5,000				5,000	10,000
Vehicle	40,000							40,000
Sub-Total	99,000	0	15,000	0	0	0	15,000	114,000
Annual Component Total	563,514	302,750	339,014	317,677	326,746	338,471	1,624,657	2,188,171

GR

COMPEA COLLABORATIVE RESEARCH NETWORK BUDGET

Component	Research Year 1	R e a s e a r c h N e t w o r k					Network Total	Grand Total
		Year 1	Year 2	Year 3	Year 4	Year 5		
A. Salaries & Allowances								
Professional Staff								
Agronomist/Coordinator		92,000	96,600	101,430	106,502	111,827	508,358	508,358
Entomologist	92,000							92,000
Support Staff								
Technical	28,240	8,000	7,920	6,270	4,530	4,000	30,720	59,960
Administrative		30,000	31,500	33,080	34,730	36,470	165,780	165,780
Sub-Total	120,240	130,000	136,020	140,780	145,762	152,297	704,858	825,098
B. Operational								
Travel (Int'l/Local)	22,500	45,000	22,275	23,000	24,150	25,360	139,785	162,285
Vehicle O & M		20,000	10,000	3,630	4,000	4,400	42,030	42,030
Regional Workshops/ Monitoring Tours		36,000	36,000	36,000	36,000	36,000	180,000	180,000
Advisory Committee		10,000	10,000	10,000	10,000	10,000	50,000	50,000
Communications		10,000	11,000	12,100	13,310	14,640	61,050	61,050
Research (include labor)	44,400	10,000	10,000	10,000	10,000	10,000	50,000	94,400
Office Supplies	15,000	9,000	9,000	9,000	9,000	9,000	45,000	60,000
Lab Supplies	27,000	5,000	5,000	5,000	5,000	5,000	25,000	52,000
Network Support		12,000	12,000	12,000	12,000	12,000	60,000	60,000
Workshops			20,000		20,000		40,000	40,000
Publications/Reproduction				10,000	10,000	10,000	30,000	30,000
Sub-Total	108,900	157,000	145,275	130,730	153,460	136,400	722,865	831,765
C. Overhead	18,036	19,500	20,403	21,117	21,864	22,844	105,729	123,765
D. Capital								
Field/Lab Equipment	44,000						0	44,000
Office Equipment	7,500		7,500				7,500	15,000
Household Equipment	5,000		5,000				5,000	10,000
Vehicle	22,000		18,000				18,000	40,000
Sub-Total	78,500	0	30,500	0	0	0	30,500	109,000
Annual Component Total	325,676	306,500	332,198	292,627	321,086	311,541	1,563,952	1,889,628

100.

VI. PROJECT MANAGEMENT REQUIREMENTS

Component	Year 1	Year 2	Year 3	Year 4	Year 5	Total
A. Technical Assistance						
Long Term						
Senior Agricultural Officer	160,000	150,000	150,000	150,000	160,000	770,000
Accountant	20,000	20,000				40,000
Skill Development and Short Term Advisors	50,000	50,000				100,000
Sub-Total	230,000	220,000	150,000	150,000	160,000	910,000
B. Management Meetings						
Oversight/Sponsoring Group Meetings			25,000	25,000	25,000	75,000
National Agr. Research Directors' Meetings			45,000			45,000
Sub-Total	0	0	70,000	25,000	25,000	120,000
C. Evaluation		100,000			100,000	200,000
GRAND TOTAL	230,000	320,000	220,000	175,000	285,000	1,230,000

VII. ACCELERATED CROP PRODUCTION OFFICER PROGRAM

Component	Year 1	Year 2	Year 3	Year 4	Year 5	Total
A. Accelerated Crop Production Officer Program						
Mali & Burkina Faso Operations	200,000	50,000				250,000
Evaluation of ACPO Program	50,000					50,000
Workshops	25,000	25,000				50,000
GRAND TOTAL	275,000	75,000	0	0	0	350,000

101

ANNEX M
ACRONYMS AND ABBREVIATIONS

ACPO	Accelerated Crop Production Officer
AID	Agency for International Development
CC	Consultative Committee
CDA	Cooperation for Development in Africa
CGIAR	Consultative Group for International Agricultural Research
CRSP	Collaborative Research Support Program
FSR	Farming Systems Research
IARC	International Agricultural Research Centers
IBRD	International Bank for Reconstruction and Development
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IFAD	International Fund for Agricultural Development
IITA	International Institute for Tropical Agriculture
INSAH	Institut de Sahel
NARS	National Agricultural Research Systems
OAU	Organization of African Unity
REDSO/WCA	Regional Economic Development Service Office, West and Central Africa
SADCC	Southern Africa
SAFGRAD	Semi-Arid Food Grain Research and Development
SAT	Semi-Arid Tropics
SCO	SAFGRAD Coordination Office
SPAAR	Special Program for African Agricultural Research
STRC	Scientific, Technical and Research Commission
TAC	Technical Advisory Committee
USAID	United States Agency for International Development