

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE

☒ C A = Add  
C = Change  
D = Delete

Amendment Number:  
2

DOCUMENT  
CODE  
3

COUNTRY/ENTITY  
S&T Bureau - Interregional

2. PROJECT NUMBER  
931-1310

3. BUREAU/OFFICE

3. PROJECT TITLE (maximum 40 characters)

S&T/AGR

☐ 10

☐ CRSP-Beans and Cowpeas

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

7. ESTIMATED DATE OF OBLIGATION  
(Under "3." below, enter 1, 2, 3, or 4)

MM DD YY  
09/30/89

A. Initial FY 810

B. Quarter ☐

C. Final FY 818

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

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FY	C. L/C	D. Total	E. FY	F. L/C	G. Total
AID Appropriated Total	715,000		715,000	17,800	12,200	30,000
(Grant) S&T Bureau	(715,000)		(715,000)	(15,800)	(12,200)	(28,000)
(Grant) Mission/Reg. Bureau III				(2,000)		(2,000)
Other L						
U.S. 2 Non Federal						8,800
Host Country						
Other Donor(s)						
TOTALS	715,000		715,000	17,800	12,200	38,800

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION PURPOSE	B. PRIMARY 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) ARDN	1411	963	16,700		11,300		28,000	
(2)								
(3)								
(4)								
TOTALS								

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

074 968 953 967 312 334

11. SECONDARY PURPOSE CODE

181

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code BRW R/AG XII INTR TNG

B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To increase bean/cowpea production and utilization and improve research capability in LDCs through collaborative research between U.S. and LDC institutions.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY  
09/84 09/85 N/A

15. SOURCE/ORIGIN OF GOODS AND SERVICES

☒ 000 ☒ 941 ☒ Local ☐ Other (Specify)

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

To extend the project for three years and increase the authorized life-of-project total cost from \$16,700,000 to \$28,000,000 and to provide up to \$2,000,000 of R.B. and Mission contributions.

1/ The estimated regional bureau and mission contributions are not included in this authorization. It is anticipated that they will be contributing to the grant under separate project authorities.

17. APPROVED  
BY

Signature

Anson R. Bertrand

Title

Director, S&T/AGR

Date Signed

MM DD YY

18. DATE DOCUMENT RECEIVED  
IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

## PROJECT AUTHORIZATION

ENTITY: Bureau for Science and Technology  
PROJECT TITLE: CRSP - Bean/Cowpea  
PROJECT NUMBER: 931-1310

A. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, the centrally funded Bean/Cowpea CRSP project was authorized on October 1, 1980 and amended on January 31, 1983. That authorization is hereby further amended as follows:

1. The authorized final year of obligation is extended from FY 1985 to FY 1988.


2. The authorized life-of-project, S&T Bureau funding is increased from \$16,700,000 to \$27,950,000 to help in financing the foreign exchange and local currency costs of the project. A new total of up to \$29,950,000 of A.I.D. appropriated funds is approved for use in this project in anticipation that regional bureaus and missions may contribute up to \$2 million, under various project authorities, to supplement the funds provided by the S&T Bureau and ensure an adequate level of project activity to meet their needs.

### 3. Source and Origin of Goods and Services

a. Each developing country where training or other assistance takes place under this project shall be deemed to be a cooperating country for the purpose of permitting local cost financing.

b. Goods and services, except for ocean shipping, financed by A.I.D. under the project shall have their source and origin in the cooperating country or in the United States except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

B. The authorization cited above remains in force except as herein amended.

  
N. C. Brady  
Senior Assistant Administrator  
Bureau for Science and Technology

Date: 10/11/84

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**Clearances:**

S&T/AGR/AP:BLPollack	<u>B.P.P.</u>	Date:	<u>9/20/84</u>
S&T/AGR:JMYohe	<u>JMY</u>	Date:	<u>9/20/84</u>
S&T/AGR:JARoyer	<u>JAR</u>	Date:	<u>9/20/84</u>
S&T/AGR:ARBertrand	<u>AR</u>	Date:	<u>9/21/84</u>
S&T/PO:GEaton	<u>K.A.M.</u>	Date:	<u>10/9/84</u>

Drafted:S&T/AGR/AP:KByergo:bw 6/7/84:ls1:7/20/84:WD 1055f

SEP 24 1984

ACTION MEMORANDUM FOR THE SENIOR ASSISTANT ADMINISTRATOR FOR  
SCIENCE AND TECHNOLOGY

THRU: S&T/FA, J. S. Robins *J. S. Robins*  
FROM: S&T/AGR, Anson R. Bertrand *Anson R. Bertrand*  
SUBJECT: Bean/Cowpea Collaborative Research Support Program  
(CRSP) Project Number 931-1310.

Problem: Your approval is requested for a three-year extension and increased funding authorization of the subject project.

Background: The Bean/Cowpea CRSP Grant was approved September 30, 1980 for a five-year period, with Michigan State University (MSU) as the Management Entity (ME) for the project. The program now involves nine U.S. institutions working in 13 host countries on 18 individual projects. Program details are provided in Attachment B. Close collaborative relationships between U.S. and LDC organizations have been developed to attack constraints to increased production and utilization of beans and cowpeas.

MSU has submitted a request for a three-year extension through September 30, 1988 (Attachment C). The proposed budget (Attachment F) for the extension is \$11.25 million, requiring an increase in the authorized life of project funding from \$16.7 million to \$27.95 million.

Review and Evaluation: The Board of Directors (BOD) and The External Review Panel (ERP) have developed a comprehensive and objective system for evaluating and rating the country activities in this CRSP. Attachment F provides a brief explanation of the system and a table summarizing the results of the ERP's 1983 review. The table shows that of the 18 country projects, 9 were recommended for continuation with no changes, 5 were recommended for continuation with suggestion for changes and 4 were recommended for continuation only if specified changes were made.

The plans for dealing with the four "troubled" projects was a major subject of discussion at the May 1984 Agricultural Sector Council (ASC), JCARD, and BIFAD review of the CRSP and the proposed three-year extension. The M.E. reported that responsible parties in all four projects had been cooperating in making the specified changes but that each of the projects is in a probationary status for the next year. In view of the

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CRSP's overall progress and record of accomplishments, (described in Attachment B) the ASC/JCARD and BIFAD recommended approval of the three-year extension based on the plans for years 6, 7, and 8 presented by the M.E. They stipulated, however, that the "troubled" projects should not be automatically extended but should be carefully reviewed by the ERP before the end of the fifth year. The planned funding for any which had not made satisfactory progress by that time should be reprogrammed for other priority research areas.

The ASC/JCARD and BIFAD approvals are attached. (Attachments D and E).

Funding: The funding requested is consistent with the guidelines given to the CRSP in November 1982. S&T/AGR plans to budget funds to support the Bean/Cowpea CRSP core activities at a level of up to \$3.75 million per year from FY 1986 to FY 1988. S&T/AGR anticipates missions and regional bureaus will contribute or "buy-in" for additional country activities within the overall scope of this project. These additional funds will be separately authorized under various mission or regional bureau projects as required. We anticipate these additional buy-ins to be \$2 million which will require an increase of approval ceiling from \$27.95 to \$29.95 million.

Recommendation: That you approve the attached project authorization amendment for a three-year extension of the Bean and Cowpea CRSP, an increase in authorized S&T Life of Project Funds from \$16.7 to \$27.95 million and an approved ceiling of \$29.95 million to accomodate up to \$2 million of Regional Bureau or Mission buy-ins.

Approved: MA/Bradley

Disapproved: \_\_\_\_\_

Date: 10/11/84

Attachment:

- A. Project Authorization and Data Sheet
- B. Program Summary
- C. Three-Year Extension Request from MSU
- D. JCARD/BIFAD Statement
- E. BIFAD Statement
- F. Bean and Cowpea Program Rating System
- G. Budgets FY 81 thru FY 88
- H. Future Plans
- I. Logical Framework
- J. Minutes of the Agricultural Sector Meeting, August 7, 1984

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Clearances:

S&T/AGR/AP:BLPollack QPM Date: 9/20/84  
S&T/AGR:JMYohe QPM Date: 9/26/84  
S&T/AGR:JARoyer Q Date: 9/20/84  
S&T/AGR:ARBertrand Q Date: 9/21/84  
S&T/PO:GEaton K9m ft Date: 10/6/84

Drafted:S&T/AGR/AP:KByergo:bw 6/7/84:Revised  
7/10/84:KByergo:meh:ls1:7/20/84:WD 1055f

## PROGRAM SUMMARY

1. INTRODUCTION

The Bean/Cowpea Collaborative Research Support Program (CRSP) is a program of coordinated projects in Africa and Latin America addressing hunger and malnutrition through research on the production and utilization of beans (*Phaseolus vulgaris*) and cowpeas (*Vigna unguiculata*). The CRSP reflects the Title XII "Famine Prevention and Freedom from Hunger" mission of the US Foreign Assistance Act under which the program is funded. Contributing to the alleviation of hunger and malnutrition in developing countries by improving the availability and utilization of beans and cowpeas, the CRSP also makes a significant contribution to agriculture in the US. The research findings and identified biological resources hold potential for solving or reducing important agricultural constraints to the availability of beans and cowpeas in all legume-producing nations.

As stated in the grant which established the Bean/Cowpea CRSP,

"This program is a long-term effort designed to bring together the research capabilities of participating universities, collaborating Title XII institutions including USDA and other federal research agencies, appropriate LDC institutions and international centers into a comprehensive and coordinated effort in research and training to generate and apply knowledge that can assist in alleviating principal constraints to improved production, marketing and utilization of beans and cowpeas in LDCs. It is based on the assumption that there are large areas of overlap between U.S. and developing country needs for research, marketing and utilization of these two crops. Substantial mutual advantages are expected to result from joint research program efforts which cut across national boundaries and different levels of agricultural development."

The Bean/Cowpea CRSP is one of seven CRSPs which through interactions among the partners (AID-US Institutions-Host Country [HC] Institutions) has evolved a research and training effort to address issues of food availability in designated areas throughout the world. Although the seven have many basic characteristics in common, each CRSP has a configuration which is somewhat unique. These differences emerged from the needs of the respective partners, the research requirements of the commodity and the stage of Title XII development at the time the particular program was begun.

As the third such program to be developed, following the Small Ruminant CRSP and the Sorghum/Millet CRSP, the Bean/Cowpea CRSP was the beneficiary of two especially critical lessons. First, it was determined that the Host Countries to participate should be identified early in the planning process. This facilitated HC involvement in planning the specific research, their acceptance of a role in that research and their readiness to begin work once the program was implemented. Secondly, to avoid a great deal of unproductive transition time, it was determined that the Planning Entity should be allowed to be a serious candidate for Management Entity when the CRSP was implemented. These two changes from the original guidelines for CRSP development have been major factors in the important achievements of the Bean/Cowpea CRSP despite its short time in existence.

Even though at program initiation all prospective participants were identified, the first year was taken up with acquiring the final approvals (which could not precede actual funding). Official government and institutional signatures on the

required documents in the US and thirteen participating HCs had to be acquired. The task for the second year was getting the projects off the ground--funds could begin to flow, identified professionals could request released time, students could apply for training and, if admitted right away, could be sent off to begin that training, approvals for equipment purchases could be requested from AID and the lucky few receiving the approvals promptly could order the first equipment before the end of the year. Thus, for the most part, it was not until late in the third year that preliminary research was enough under way to suggest tentative initial findings. There are striking exceptions where important and significant results have already been obtained. These are frequently the consequences of the Program's being able to capitalize on previous long-term thinking, associations and background research which fitted the precise needs of the CRSP and required only its guided human and financial resources to push the work over the top. An excellent example of this is the first work reported in the CRSP Vanguard series by a senior US researcher, his former student who is presently a research leader in the participating HC, and a current graduate student working with the team.

## 2. PROGRAM GOAL

By making available to the international agricultural research and development system a new avenue to the US agricultural research network, the Bean/Cowpea CRSP is organized to make important contributions to the resolution of difficult and persistent problems associated with bean and cowpea production and utilization.

The grant document puts forward the following goal of the Bean/Cowpea CRSP:

"The goal to which this program is to make a significant contribution is improvement in living conditions of small farm producers in LDCs and increased availability of low cost nutritious foodstuffs in the marketplace for the rural and urban poor in LDCs."

## 3. PROGRAM PURPOSE

The grant document further identifies the following purpose of the CRSP:

"The purpose of this program is to organize and mobilize financial and human resources necessary for mounting a major multi-institutional U.S.-LDC collaborative effort in research and training. This effort is expected to provide the knowledge base necessary to achieve significant advances in alleviating the principal constraints to improved production, marketing and utilization of beans and cowpeas in LDCs. A subpurpose is to improve the capabilities of appropriate LDC institutions to generate, adopt and apply improved knowledge to local conditions."

## 4. PLANNING PROCESS

During planning, a thorough identification was made of HC and US problem areas, interests and capabilities. The planning group met with HC nationals engaged in legume research at national and international conferences and workshops. International groups were invited to the US to further refine the effort. Extensively researched and honed to the needs of the HC and the international

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agricultural community, the CRSP research projects evolved from this comprehensive process. Below is a chronology of important events in the Bean/Cowpea CRSP planning process.

### Chronology of the Bean/Cowpea CRSP Planning Process

- July, 1978      BIFAD authorized planning for Bean/Cowpea CRSP.
- October, 1978      Letter to Title XII institutions requesting indications of manifest interest--43 responded.
- May, 1979      Fact-finding team visits to South America, Caribbean and Mexico, West Africa, and East Africa--team members from various Title XII institutions. Collected information on constraints. Met potential collaborators.
- May, 1979      Bean/Cowpea proposals received from interested institutions responding to RFP. Proposals received from 77 persons representing 25 institutions.
- June, 1979      International Peer Review Panel Meeting to evaluate proposals received. Sixteen panel experts represented CIAT, IITA, IICA and US senior legume scientists.
- October, 1979      Host Country Advisory Group Meeting, MSU. Prioritized constraints relative to country needs. Subsequently matched country needs with US evaluated proposal topics.
- November, 1979      Meeting with JRC for approvals of Title XII institutions and collaborating research scientists abroad.
- March--April, 1980      Meetings on-site of potential US and HC collaborators--  
a) familiarizing US collaborators with the specific resources, problems and culture of the country in which work to be conducted; and  
b) providing an opportunity for scientists of the US and the HCs to get to know each others' interests, capabilities and approaches to problem solving, in preparation for:  
c) developing specific research designs and budgets to address the problems identified.

April, 1980 JRC meeting--approval of 10 institutions to participate in the CRSP.

April, 1980 CRSP Development Meeting, Chicago O'Hare, with the 10 institutions approved for CRSP involvement. Brief report of the collaborators' meetings, the Global Plan, decisions on the CRSP Management Entity and the initial five institutions to be members of the first Board of Directors.

June, 1980 Presentation of Bean/Cowpea Global Plan and proposal to implement the CRSP to JRC and AID (one institution subsequently omitted).

October, 1980 Bean and Cowpea Grant approved,

## 5. PROGRAM CONSTRAINTS

The constraints to the availability of beans and cowpeas, as identified during the planning process, became the basis for the development of the global or master plan. These constraints as presented in that plan defined the major issues which the project research was designed to address. The constraints are as follows:

1. Limitations due to pests and diseases,
2. Plant response limitations,
3. Limitations of the physical environment,
4. Farming practices limitations,
5. Storage problems,
6. Production-consumption economics,
7. Nutrition, food preparation and health,
8. Sociocultural factors, and
9. Education, training and research capability.

## 6. EVOLUTION OF THE GLOBAL PLAN

The Global Plan for the Bean/Cowpea CRSP was developed by the Planning Entity based on the identified constraints. Implemented during the first year of this program, the plan presented a configuration of nine US lead institutions providing leadership in eighteen projects all of which are presently in existence. Early on, just before the presentation and approval of the initial Global Plan, a tenth lead institution (Mississippi) withdrew from involvement. After plan approval, there were two other revisions made in the plan--Mexico was substituted for CIAT (although CIAT remains involved) and Botswana was substituted for Guyana. Nonetheless, the worldwide research needs for beans and cowpeas which were identified as needing to be included in the initial efforts of the CRSP are all being addressed.

At the time that the plan was evolving, much about the CRSP mode was new and uncharted. Guidelines for program implementation had to be developed which would reinforce the mission and keep the program on track. It was determined that the Bean/Cowpea CRSP projects were to

1. Be individual but structurally integrated in order to make the maximum contribution to the availability of beans and cowpeas in areas where they are important to human diet;
  2. Emphasize multidisciplinary research integrating production and non-production issues;
  3. Focus on research in traditional settings;
  4. Build strong and collegial professional relationships among the HC and US researchers in each project;
  5. Make financial resources available for both HC and US research activity;
  6. Contribute to the strengthening of HC institutions through the enhancement of facilities and equipment needed to support that research;
  7. Contribute to the strengthening of HC institutions through a significant level of graduate and undergraduate study, short-term courses, conferences and workshops;
  8. Pay specific attention to the roles and participation of women;
  9. Be alert to mechanisms for information dissemination; and
  10. Provide an opportunity for private sector participation in research activity and in the dissemination of products.
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# GLOBAL RESEARCH PLAN (Revised) BEAN/COWPEA CRSP

SEMI-ARID ZONE

SEMI-ARID ZONE

NIGERIA

1. Cowpea processing and preservation; 2. child health associated with cowpea foods

KENYA

Drought and heat resistance in disease-resistant beans for semi-arid regions

CAMEROON

Non-pesticide control of cowpea pests in field and storage

TANZANIA

\*Responses to bean insect and disease problems and their economic viability for small farmers

AFRICA

IITA

Collaboration and interaction with CRSP cowpea programs

SENEGAL

A program to improve the quality of cowpea varieties for production and utilization in semi-arid zones

MALAWI

Bean germplasm evaluations and the basis of maintenance of land race diversity

CIAT

Collaboration and interaction with CRSP bean programs

BOTSWANA

Cowpea farming systems research and variety evaluation in semi-arid areas

DOMINICAN REPUBLIC

Introgression of disease-resistant germ plasm in adapted bean cultivars for the Caribbean

LATIN AMERICA

BRAZIL

1. Multiple bean disease resistance screening;  
2. cowpea insect pathogens;  
3. N-use efficiency of bean production

HONDURAS

Increase and stabilization of Honduran bean production through disease resistance

INCAP

Cooking time and protein digestibility of beans

ECUADOR

Nature of wide adaptation in beans and socio-cultural interpretations (replication varying natural environmental factors -- see Guatemala)

GUATEMALA

Nature of wide adaptation in beans and socio-cultural interpretation (replication varying natural environmental factors -- see Ecuador)

MEXICO

Bean plant responses to stress and N-fixation

## 7. MANAGEMENT ORGANIZATION

### Management Entity (ME)--Michigan State University

Total program and fiscal responsibility for the performance of the CRSP rests with the Management Entity. The administrative work of the CRSP, organized and funded by the Management Entity, is achieved through the participation of groups as follows:

### Management Office (MO)

This is the operational office of the Management Entity for the Bean/Cowpea CRSP. It is located on the Michigan State University campus but maintains constant communications with the project personnel in the US and HCs as well as the management support groups listed below. The MO is organized with the following staff positions.

Director	100%
Deputy Director	50%
WID/Program Specialist (50%/50%)	100%
Administrative Officer	100%
Executive Secretary	100%
Secretary-Receptionist	100%

Despite almost 100 percent turnover in staff within the last 1-1/2 years, the Management Office has continued to (1) monitor project activity in US and HCs as needed, (2) provide support and guidance to all projects, (3) reinforce attention to the WID perspective, (4) reinforce communication among the various participants of the CRSP, (5) encourage better project integration in the lead and HC institutions, (6) provide staff support to the BOD, TC and ERP, (7) carry out the policies and recommendations of these groups, (8) maintain communication flow between the CRSP and AID/BIFAD as well as (9) increase the published output and (10) represent the CRSP in wider national and international settings.



## External Review Panel (ERP)

members

Eminent scientists from an array of disciplines with no previous connection to the CRSP are appointed by BIFAD to annually review and evaluate the individual CRSP projects and the Program as a whole. The ERP has completed two reviews of the CRSP. A report of their findings each year presents the results of US and HC site visits and project progress report reviews.

## Institutional Representatives (IRs)

10 members

There is one IR from each of the nine lead institutions plus an additional one from the University of California-Riverside/Davis system. There are no regularly scheduled meetings but frequent mailings from the MO keep them informed of overall CRSP activity. They are the senior link between the CRSP project personnel at their institution and the administration there. Letters from the IRs indicating the role and contributions of the projects with their institutions are included in Section II.

## Board of Directors

5 members

Elected from among the nine lead institutions' Institutional Representatives, this is the policy-making group of the CRSP. One member is a standing member representing the Management Entity. In addition to these five members, the Board invites consulting members to its meetings from among the HC administrators. An average of three meetings are held per year staffed by the Management Office.

## Technical Committee (TC)

7 members

Composed of researchers associated with the CRSP, this group is responsible for internal project review and research coordination. Members and their alternates are appointed by the Board. It is made up of:

Researchers from CRSP US institutions	5
Researchers from CRSP HC institutions	1
Representatives from IARCs (CIAT or IITA)	1

An average of five meetings are held per year staffed by the Management Office. Some of the major activities of this group have been (1) monitoring progress of projects, (2) reviewing requested changes in projects, (3) responding to ERP recommendations, (4) identifying new areas for collaboration and cooperation, (5) determining most efficient and effective methods for disseminating CRSP information and (6) making recommendations to the Board regarding policies needed for the successful operation of the projects.

o. COUNTRY RESEARCH PROJECT ORGANIZATION

The research of the CRSP is organized in sets of HC and US teams collaborating in addressing one or more constraints to bean or cowpea production and utilization. No projects are free standing in the US without HC alliances. All evolved from the two-year planning effort.

Total projects		18
Africa	8	
Latin America	10	
Host Countries		13
Africa	7	
Latin America	6	
Bean projects		12
Africa	3	
Latin America	9	

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Cowpea projects		6
Africa	5	
Latin America	1	
US lead institutions		9
US institutions contributing resource scientists	14	
Cooperating International Research Centers		2

9. COUNTRY RESEARCH PROJECT PERSONNEL

Notwithstanding coups or serious coup attempts in five of the CRSP HCs, food riots and other forms of political unrest, the projects continue their steady forward progress. This noteworthy achievement is undoubtedly the product of convivial professional relationships formed among the heterogeneous group of competent people whose human natures seem to demand that, in the midst of confusion and havoc, they seek the path of greatest dedication to the application of science in solving social problems.

PROFESSIONAL RESEARCHERS PARTICIPATING IN CRSP

	<u>Males</u>	<u>Females</u>	<u>Total</u>
HC.	90	11	101
US	53	16	69
Total	<u>143</u>	<u>27</u>	<u>170</u>

US RESEARCHERS IN RESIDENCE IN HCS FOR 6 MONTHS OR LONGER

6 males                      2 females                      8 total

The organization of project research teams has developed based on the needs and existing resources of the projects and the professional relationships established between the HC and US PIs. Three successful models have emerged:

1. No US scientists are stationed in the HCs but active communication, professional cooperation and collegial relationships are maintained. This model is especially appropriate where the HC, similar to the US, maintains a critical mass of scientists including effective senior scientists. Example: Senegal.
2. Junior scientists (including post-doctorates or advanced Ph.D. students) are stationed in HCs, under close and frequent supervision of senior US PIs, to work with national programs. This model is especially successful where there is an effective HC team but less than a critical mass in the identified research area. Example: Brazil.
3. Senior US scientists are stationed in HCs to work with national programs. This model is especially effective where the HC has very limited research personnel and the US PI acts as a stimulus to building a critical mass. Example: Botswana.

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These models of collaboration are only three among many possibilities, but they evolved from surveys of existing needs and resources and candid negotiations among the principals during the planning and early implementation phases. Because the structure of model #1 is the most equitable and mutually rewarding for the long term, those projects for whom models #2 or #3 are currently the most appropriate are motivated to focus attention on a comprehensive plan to achieve that level of operation.

To reinforce and maintain professional relationships within and among the US/HC teams, project personnel consult with one another frequently, visiting one another's programs and assessing the progress of laboratory and field research strategies jointly developed. The international travel sustained by the projects through the first three years of the CRSP is presented below.

BEAN/COWPEA CRSP INTERNATIONAL TRAVEL THROUGH 9-30-83  
(Person Trips)

<u>Project</u>	<u>To Collaborating Country</u>	<u>Prof. Mtg..in Another Country</u>	<u>Training--IARCs</u>
Botswana/CSU	2	0	1
Brazil/BTI	12	2	0
Brazil/Bliss	7	1	0
Brazil/Hagedorn	2	0	0
Cameroon/UGA	6	3	1
Dom. Republic/UNE	14	0	2
Dom. Republic/UPR	5	3	3
Ecuador/COR	20	1	2
Guatemala/COR	15	2	1
Honduras/UPR	8	3	0
INCAP/WSU	8	1	0
Kenya/UCD	7	0	0
Malawi/MSU	14	0	1
Mexico/MSU	4	0	0
Nigeria/UGA	4	14	2
Nigeria/MSU	3	4	0
Senegal/UCR	9	1	0
Tanzania/WSU	9	5	2
<u>Total Project Trips</u>	<u>149</u>	<u>40.0</u>	<u>15.0</u>
<u>Average US/HC Trips</u>	<u>3</u>	<u>7</u>	<u>.3</u>
Per Project Per Year			

10. PROGRAM ACHIEVEMENTS

Research

In the less than three years of actual operations, CRSP researchers are already reporting significant contributions to CRSP goals. For example,

- a. Research illuminating the interaction of altitude (temperature) and latitude (daylength) now suggests it is possible to identify each cultivar's optimal environment (see Vanguard Vol. 1, No. 1 in Section III).

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- b. Large collections of bean and cowpea germ plasm have been made throughout Africa and Latin America.
- c. Large numbers of local and exotic bean and cowpea lines have been screened for
  - Pest resistance
  - Disease resistance
  - Heat resistance
  - Drought resistance
- d. Breeding programs were initiated incorporating these materials with those of the US collections and the IARCs--these materials also shared with national and international programs. Testing has begun at many sites offering an array of altitude/latitude variations.
- e. One national germ plasm guide, growing out of the extensive germ plasm survey and research, has been prepared for publication.
- f. Extremely early cowpeas were developed producing acceptable yield under the recent severe African drought and heat conditions (see Research Highlights Vol. 1, No. 1 in Section III).
- g. Bean-tepary crosses have progressed to field trials which have identified drought resistance (see Research Highlights Vol. 1, No. 6 [in process]).
- h. Quick, inexpensive and technically feasible methodology was developed for assessment of viral contamination of lines to be transported across national boundaries (see Research Highlights Vol. 1, No. 5 in Section III).
- i. Five new multiple disease resistant bean genotypes were released and made available to breeding programs (see Research Highlights Vol. 1, No. 2 in Section III).
- j. Basic research on the genetics of inheritance of resistance proceeding.
- k. Research on variations among strains of plant pathogens is generating information critical to disease control.
- l. Interactions were identified among bacterial isolates, their concentrations and host plant genotypes as important components in disease control.
- m. Over one hundred isolates of insect pathogens were collected for research on biological insect control (see Research Highlights Vol. 1, No. 3).
- n. Insect control research on identified cowpea pests' life-cycle and reproductive habits is generating important preliminary findings.
- o. Experimental results with superior bean selections and superior isolates of *Rhizobium phaseoli* is suggesting greater than usual levels of nitrogen fixing potential adequate for commercial level bean production on small farms using traditional cropping systems.
- p. Secondary research is generating important information on the role of women in food production (see Women-in-Agriculture Guide--Cameroon in Section III).

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- q. Socio-cultural and socio-economic studies are generating important information which will contribute to decision making in breeding programs.
- r. Methodology is being developed for village-level production of cowpea meal acceptable for preparation of traditional foods (see Research Highlights Vol. 1, No. 4 in Section III).
- s. An extensive canvassing of the variety of methods used for evaluation of bean quality has been done and a report of these methods is being organized for use by the scientific community (see Monographs Vol. 1, No. 2 [in process]).
- t. Extensive secondary research completed on the eating of legume leaves and their role in traditional diets (see Monographs Vol. 1, No. 1 in Section III).
- u. Appropriate farming implements were developed (jointly with other groups) suitable for an identified Host Country farming system and environment.
- v. Collaboration achieved with other international agricultural programs funded by AID and other bilateral donors.
- w. CRSP-sponsored, organized and run workshops and short courses (i.e., BNF, biological insect control, MSTAT) have been contributing to the professional programs of CRSP students and the continuing education of CRSP professionals.

Details of research achievements--1983 Annual Report: Technical Summary, Section III.

## Training

From the beginning the CRSP has made an on-going effort to emphasize the training of US and HC scientists prepared to work together in the international agriculture context. This effort is the result of a CRSP philosophy that research capacity must be strengthened to build a long-term attack on constraints to food availability throughout the world. While not emphasized to the same extent as the training of HC nationals, US students are also supported under the CRSP. These students, often in exchange arrangements to HCs, provide good counterparts to HC students studying in the US. Frequently important potentially long-term professional relationships evolve (some of the US and HC PIs were students together years ago at a Title XII institution). In addition, US students are provided invaluable learning experiences that will render them more knowledgeable future professors of US and HC students studying in the US in subsequent years. Thus, all is done with an eye toward what will exist after a CRSP project comes to an end.

Strengthening HC institutions through short-term and long-term training in informal and formal settings is encouraged by each of the CRSP's projects. Especially encouraged is graduate-level education to help build a critical mass of professional researchers in the Host Countries participating in this CRSP.

As a part of that effort, projects maintain a strong concern for the educational advancement of women and, through the support of their Host Country colleagues, are gradually being successful. The potential for human resource development is especially significant in this program because of continuing efforts to reinforce gender participation as well as the participation of diverse national/ethnic groups. The following charts and diagrams show CRSP training activity over the first three years.

1983 BEAN/COWPEA CRSP TRAINING COMPONENT

	HOST COUNTRY				UNITED STATES				OTHER DEVELOPING COUNTRIES				TOTAL
	Degree*		Non-Degree**		Degree		Non-Degree		Degree		Non-Degree		
	M	F	M	F	M	F	M	F	M	F	M	F	
BOTSWANA	0	1	2	0	0	2	0	1	0	0	0	0	6
BRAZIL/ROBERTS	0	0	14	24	0	1	1	2	0	0	0	0	42
BRAZIL/BLISS	1	0	1	0	0	0	0	0	0	0	0	0	2
BRAZIL/HAGEDORN	0	0	0	0	0	0	0	0	0	0	0	0	0
CAMEROON	0	0	0	0	0	0	0	0	0	0	1	0	1
DOM. REP./COYNE	2	0	2	0	1	1	0	0	2	0	0	0	8
DOM. REP./LOPEZ-ROSA	3	0	2	1	1	0	4	2	0	0	0	0	13
ECUADOR	0	0	0	1	0	0	0	1	0	0	0	0	2
GUATEMALA	3	0	1	0	2	0	1	0	1	0	2	0	10
HONDURAS	1	0	2	0	0	0	0	0	0	0	0	0	3
INCAP	5	6	6	2	5	5	0	0	2	0	1	0	32
KENYA	1	1	1	0	1	0	0	2	0	0	0	0	6
MALAWI	2	0	0	0	1	1	0	0	0	0	0	0	4
MEXICO	1	0	1	0	0	0	0	0	0	1	0	1	4
NIGERIA/MARKAKIS	0	1	0	0	0	0	0	0	0	0	0	0	1
NIGERIA/MCWATTERS	0	0	0	0	2	1	0	0	0	1	0	0	4
SENEGAL	2	0	1	0	1	2	0	0	6	0	4	0	16
TANZANIA	2	1	4	3	0	1	0	0	1	0	0	0	12
Total	23	10	37	31	14	14	6	8	12	2	8	1	166***

\* The majority of these students are enrolled in Master's or Ph.D. programs in US institutions. In a few cases individuals are completing Bachelor's degrees prior to enrollment in graduate programs.

\*\* Included here are programs of from a few days to nearly a year's duration attended by students and technicians associated with the CRSP.

\*\*\* It should be noted that some degree students have also participated in non-degree training and in these cases have been counted in each category. While the total number of traineeships is 166, the actual number of individuals is 149.

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11. LINKAGES WITH INTERNATIONAL AGRICULTURAL RESEARCH CENTERS (IARCs)

From the beginning, when the heads of the respective legume programs at CIAT and IITA were invited to participate in CRSP planning (i.e., Peter Graham and subsequently Aart Van Schoonhoven from CIAT; Peter Goldsworthy and subsequently Shiv Singh from IITA), CRSP and IARC scientists have maintained collegial professional relationships which in many cases predated the birth of the CRSP. These relationships have, in most cases, grown to the mutual advantage of both groups. Examples of the relationships are as follows:

1. The heads of the legume programs of the cooperating IARCs alternate on the Technical Committee (Shiv Singh of IITA and Aart Van Schoonhoven of CIAT).
2. IARC scientists have taken sabbatical leaves to study with senior CRSP scientists and CRSP scientists have spent their sabbaticals at the IARCs (i.e., CIAT's Steve Temple to Wisconsin; IITA's Earl Watt to Michigan State University; CRSP's Matt Silbernagel to CIAT).
3. CRSP graduate students (i.e., Paul Gniffke from Cornell) and trainees (i.e., Betty Gondwe from Tanzania) trained and conducted research at IARCs. The CRSP has sponsored several such trainees. IARC-trained graduates (i.e., Moffi Ta'Ama) have found positions in CRSP projects.
4. IARC plant material is included among lines in CRSP trials (i.e., Dominican Republic) and among the material evaluated in the CRSP food science research (i.e., INCAP).
5. Conversely, CRSP material has been used by CIAT and additional lines have been requested and are being furnished to IARCs by CRSP teams (i.e., Kenya/University of California tepary crosses).
6. CRSP and CIAT cooperate in agronomic and varietal on-farm research such as presently being planned in Honduras.
7. The CRSP and CIAT have worked together sponsoring important joint professional meetings such as the Rust workshop held in 1983 in the Dominican Republic. At this meeting, international leaders in rust research reached agreement on new evaluation criteria and labels to be used worldwide as the standard in rust evaluation trials.
8. The CRSP and IITA are co-sponsoring a worldwide cowpea conference in November of 1984 in Ibadan, Nigeria.

These cooperative efforts evolved as mutual advantage was perceived by the respective units. The MOUs between the CRSP and the IARCs demonstrate the extent to which both groups are concerned that duplication is held to a minimum, complementarity is enhanced and our respective resources are used as efficiently and appropriately as possible to increase the availability of beans and cowpeas in the food deficient areas of the world.

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## 12. CONCLUSION

The CRSP has concentrated on maintaining a well-integrated research and training program. It has attempted to strike a balance between the research needs of legume science for the common good and the more narrow special needs of participating US and HC research programs. A high level of communication among the participants and especially across the disciplines supports this balance (i.e., researchers rotating through terms on the Technical Committee, multi-disciplinary participation in CRSP meetings and workshops). We are now beginning to see project leaders turn to one another for assistance in specified areas. Sometimes projects help train new personnel for one another. For example, a HC food scientist, beginning food quality assessments of the lines being developed by the CRSP disease resistance project in his country, visited with the food science US and HC team in another country to learn of the major ideas and findings emanating from their work. Another CRSP project on drought and heat tolerance is negotiating with a disease resistance project to have the promising lines for drought and heat screened by them for disease resistance. A similar service function to other CRSP projects is being performed by one of the projects concentrating on biological nitrogen fixation.

Slowly the real value of the wealth of resources represented by an organization of this size and complexity is making itself understood. While overall management keeps the few persons responsible for critical points in the operation, such as the AID program officer, the BIFAD liaison person, and the Management Office, extremely busy, all parts together suggest the energy and exciting potential in the program as a whole. The constraints identified are complex and stubborn and long-term research is expected to be required if they are to be adequately addressed. If there is any hope that this process can be accelerated, it will be through assembling an array of competent, dedicated persons who are heterogeneous in their professional and cultural backgrounds. Unencumbered by gender discrimination and national/ethnic neglect, this is best described as intellectual germ plasm. And indeed, it is the true promise of the Bean/Cowpea CRSP.

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MICHIGAN STATE UNIVERSITY

BEAN/COWPEA CRSP MANAGEMENT OFFICE  
200 CENTER FOR INTERNATIONAL PROGRAMS  
(517) 355-4693 TELEX: 810 251 0737  
MSU INT PRO ELSC

EAST LANSING • MICHIGAN • 48824

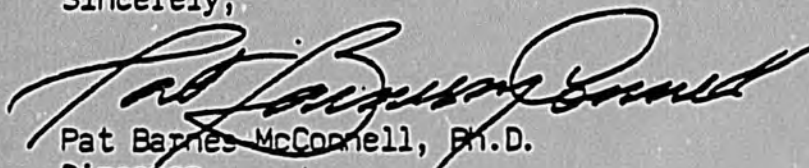
May 1, 1984

Dr. Anson Bertrand, Director  
Office of Agriculture  
Bureau of Science and Technology  
US International Development Cooperation Agency  
Agency for International Development  
Washington, DC 20523

Dear Dr. Bertrand:

On behalf of Michigan State University, management entity for the Bean/Cowpea CRSP, presently funded under Grant No. AID/DSAN-XII-G-0261, I wish to formally request a three-year extension with new funds to support continuation of the Program. Documentation supporting this request as designated in Preliminary Guidelines for Triennial Review and Three-Year Extension is submitted under separate cover. This documentation will include a fiscal and programmatic review of CRSP activity with projections for the final years of the original grant and the requested extension years. We would be more than happy to provide on request any additional information which may be helpful.

Sincerely,



Pat Barnes McConnell, Ph.D.  
Director

PBM:skb:5695B

cc: Dr. B. L. Pollack, Program Manager  
Dr. F. W. Johnson, BIFAD Liaison  
Dr. L. L. Boyd, Chair, Board of Directors  
Dr. M. J. Silbernagel, Chair, Technical Committee  
Dr. J. H. Anderson, Institutional Representative, MSU


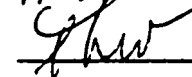
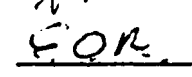
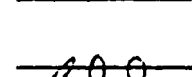
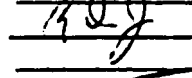

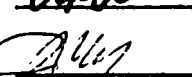
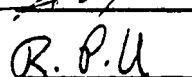
JOINT REVIEW OF THE JCARD PANEL ON CRSPs AND THE AGRICULTURE SECTOR COUNCIL ON  
CEREAL GRAINS AND GRAIN LEGUMES

Review Date: May 22, 1984

1. Project Office Office of Agriculture
- Project Number: 931-1310
- Project Title: CRSP - Beans/Cowpeas
- Proposed Contractor: Michigan State University  
(Management Entity)
- Proposed Project Period: Three-year extension from:  
October 1, 1985 to September 30, 1988
- Proposed Budget: \$3.75 million annually for three  
years. Total cost for three-year  
period, \$11.25 million.

2. The members of this Joint Committee and their findings are specified below:

## Sector Council Subcommittee

Office	Name	Signature	Endorsed	Not Endorsed
AFR/DR:	C. Wiggin		<input checked="" type="checkbox"/>	<input type="checkbox"/>
ASIA/TR/ARD:	T.L. Wilson		<input checked="" type="checkbox"/>	<input type="checkbox"/>
LAC/DR:	E. Rupprecht		<input checked="" type="checkbox"/>	<input type="checkbox"/>
NE/TECH:	L. Voth		<input checked="" type="checkbox"/>	<input type="checkbox"/>
S&T/AGR/AP:	R. Jackson		<input checked="" type="checkbox"/>	<input type="checkbox"/>
JCARD Panel on CRSP:			<input checked="" type="checkbox"/>	<input type="checkbox"/>
NE/TECH:	W. Furtick		<input checked="" type="checkbox"/>	<input type="checkbox"/>
S&T/AGR:	J. Yohe		<input checked="" type="checkbox"/>	<input type="checkbox"/>
U. of Arizona:	P. Upchurch		<input checked="" type="checkbox"/>	<input type="checkbox"/>

3. It is the decision of this Committee that this project be:

☒ Endorsed

☐ Not Endorsed

Signature:



Anson R. Bertrand  
Chairman, Subcommittee  
Agriculture Sector Council on  
Cereal Grains and Grain Legumes

Signature:



Rodney Foil  
Chairman, JCARD  
Panel on CRSP



AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON, D.C. 20523

MEMORANDUM

July 23, 1984

TO: See Distribution

FROM: S&T/AGR, Anson R. Bertrand *Anson*

SUBJECT: Agriculture Sector Council Meeting - Tuesday, August 7, 1984

Attached is the result of the joint review of the Bean/Cowpea CRSP by the JCARD panel on CRSPs and the Agriculture Sector Council on Cereal and Leguminous Grain. Also attached is the contractor's Executive Summary of the 1983 Annual Report covering the first three years activities, their request for a three-year extension and other publications relevant to the progress of the CRSP.

The three year project extension request will be an item on the agenda of the Agriculture Sector Council meeting on Tuesday, August 7, 1984 at 10:30 a.m.

Distribution:

LAC/DR/RD, Albert L. Brown  
NE/TECH/AD, Wilbur Thomas  
ASIA/TR/ARD, Charles H. Antholt  
AFR/DR/ARD, David Schaer  
BIFAD, John G. Stovall

*25*



BOARD FOR INTERNATIONAL FOOD AND AGRICULTURAL DEVELOPMENT  
INTERNATIONAL DEVELOPMENT COOPERATION AGENCY

Agency for International Development  
Washington, D.C. 20523

July 30, 1984

MEMORANDUM

TO : S&T/FA, John S. Robins

FROM : BIFAD/S, Priscilla A. Boughton, Acting

SUBJECT : JCARD/BIFAD Action on Proposed Extension of the Bean/Cowpea CRSP

The purpose of this memo is to formally transmit BIFAD's action on the proposed extension of the Bean/Cowpea CRSP. The Board, acting on a recommendation from JCARD, endorsed by resolution the extension of the CRSP for three years. Earlier, the CRSP Panel of the Joint Committee on Agricultural Research and Development met with a subcommittee of the Agriculture Sector Council and reviewed the Management Entity's (Michigan State University) proposal for extension of the Bean/Cowpea CRSP (B/C CRSP). This review resulted in the joint recommendation that the B/C CRSP be extended for three years.

The Chairman of JCARD's CRSP Panel, Rodney Foil, reported on the Panel's recommendation at the meeting of the Executive Committee of JCARD on July 11, 1984. The Executive Committee, acting on behalf of JCARD, endorsed the recommendations of the Panel by a formal resolution that the Bean/Cowpea CRSP be extended for three years, and that the recommendations of the External Review Panel for correction of deficiencies be implemented. These are cited below and are described in Attachments A, B, C, D and E.

(1) Project in Brazil - University of Wisconsin (P.I. Hagedorn):  
Techniques for Development of Multiple Disease Resistance in *Phaseolus Vulgaris* L. (Attachment A).

(2) Cameroon - University of Georgia: Pest Management Strategies for Optimizing Cowpea Yields in Cameroon (Attachment B).

(3) Honduras - University of Puerto Rico (P.I. Lopez - Rosa):  
Improvement of Bean Production in Honduras through Building for Multiple Disease Resistance (Attachment C).

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(4) Kenya - University of California, Davis: Improvement of Drought and Heat Tolerance of Disease Resistant Beans in Semiarid Regions of Kenya (Attachment D).

(5) CRSP Management Evaluation - Michigan State University: The Management Office (Attachment E).

The Co-Chairman of JCARD reported on the Panel's recommendation and JCARD's endorsement to the Board for International Food and Agricultural Development (BIFAD) on July 20, 1984. Also, the Program Director of the Bean/Cowpea CRSP made a comprehensive report on progress of the CRSP since its inception in 1980, highlighting its achievements. The BIFAD review marked the culmination of the joint AID/BIFAD/JCARD triennial review process that has been initiated for all CRSPs.

In recommending to AID the three-year extension, BIFAD praises the achievements of the CRSP and endorses the resolution of JCARD that the ERP's recommendations be implemented. Also, BIFAD emphasizes the importance of assuring that research results reach farmers by establishing firm linkages with extension organizations in LDCs.

Attachments: A, B, C, D, E, as stated

- 1 -

## PROJECT REVIEW AND EVALUATION PROFILES

EXTERNAL REVIEW PANEL EVALUATIONS AND FOLLOW-UP

At the Annual Meeting of the ERP, the progress reports of the projects and site reviews were discussed at length and evaluated. A summary is presented here.

## Project Evaluation Scales

Each project was assessed in seven categories related to the review issues agreed upon at the beginning of the process. The categories are:

- |   |  |
|---|--|
| 1. Administration of Project                            | 2. Technical Personnel                           |
| 1.1 Host Country  | 2.1 Host Country                                 |
| 1.2 United States                                       | 2.2 United States                                |
| 1.3 AID   | 2.3 Collaboration                                |
| 1.4 Interaction   |  |
| 3. Project Progress                                     |  |
| 3.1 Log Frame/Consistency of Objectives with Activities |  |
| 3.2 Achievement of Natural Science Objectives           |  |
| 3.3 Achievement of Social Science Objectives            |  |
| 3.4 Achievement of Training Objectives                  |  |
| 3.5 Publications/Information Dissemination              |  |
| 3.6 Food and Nutritional Component                      |  |
| 3.7 Consideration of Women in Development (WID) Issues  |  |
| 3.8 Application to Systems Used by Small Farmers        |  |
| 3.9 Contribution to Development in the Host Country     |  |
| 4. Linkages   | 5. Overall Major Project Strengths/Deficiencies  |
| 4.1 Host Country  | (See complete ERP Report in Section III)         |
| 4.2 AID Projects  | 6. Response to Prior ERP Project Recommendations |
| 4.3 International                                       | 7. Overall Recommendation Rating                 |

The items within the categories were assessed using the scales presented below.

Overall Rating: General performance was considered with projects receiving one of three recommendations: #1 continuation with no major changes, #2 continuation with some changes recommended, and #3 continuation only with identified changes.

Five-Point Evaluation Scale (for items 1-3.8, 4 and 6): Within a project each category was judged to be Exceptional (E), Highly Satisfactory (HS), Satisfactory (S), Less than Satisfactory (LS), and Unacceptable (UA). In some cases a specific criterion was not applicable and thus was rated Not Applicable (NA).

Contribution to Development in the Host Country (for item 3.9): Evolving development potential was evaluated on the basis of Limited (L), Potentially Limited (PL), Potentially Important (PoI), Potentially Useful (PU), Already Important (AI), Highly Promising (HP), Long-Term Potential (LTP), and Beginning to Show Potential Worldwide Significance (WW).

Overall Major Project Strengths/Deficiencies (for Item 5): Brief descriptive statements included in texts of Project Evaluation Profiles are presented in the complete 1983 ERP Report.

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# SUMMARY 1983 EXTERNAL REVIEW PANEL EVALUATION PROFILES

	ADMINISTRATIVE				TECHNICAL			PROGRESS										LINKAGES			RESPONSE TO ERI <sup>a</sup>	RATING <sup>a</sup>
	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.1	4.2	4.3	6	7	
BOTSWANA	HS	HS	S	S	LS	HS	S	S	E	LS	HS	S	NA	S	HS	PoI	E	LS	HS	S	1	
BRAZIL/ROBERTS	S	HS	S	S	LS	HS	LS	HS	E	NA	S	S	NA	S	HS	PU	S	NA	HS	S	2	
BRAZIL/BLISS	HS	HS	S	S	LS	E	HS	HS	E	NA	HS	HS	NA	LS	S	PoI	E	NA	HS	NA	1	
BRAZIL/HAGEDORN	S	LS	S	UA	LS	HS	UA	S	LS	NA	LS	NA	NA	LS	NA	L	S	NA	LS	UA	3	
CAMEROON	LS	LS	S	LS	UA	HS	LS	HS	HS	NA	LS	S	NA	LS	S	PoI	S	S	S	UA	3	
DR/COYNE	S	HS	HS	HS	HS	HS	E	S	HS	S	HS	HS	NA	HS	S	PoI	S	NA	S	HS	1	
DR/LÓPEZ-ROSA	S	HS	HS	E	HS	HS	E	S	HS	S	HS	HS	NA	HS	HS	AI	S	NA	S	HS	1	
ECUADOR	S	S	HS	HS	S	S	HS	LS	S	HS	LS	S	S	HS	HS	HP	HS	S	S	HS	2	
GUATEMALA	HS	S	S	S	HS	HS/UA	HS	LS	E	UA	S	S	LS	LS	HS	WW	S	S	HS	S	2	
HONDURAS	LS	S	S	LS	LS	S	LS	S	S	LS	S	S	NA	UA	S	PoI	S	S	S	S	3	
INCAP	S	S	S	S	E	HS	S	S	HS	S	S	S	HS	LS	S	PoI	S	S	HS	HS	1	
KENYA	UA	LS	S	LS	S	HS	LS	S	S	NA	S	S	NA	S	S	PU	S	S	S	LS	3	
MALAWI	S	S	S	S	HS	HS	HS	HS	HS	HS	HS	S	S	HS	HS	LTP	HS	S	S	NA	1	
MEXICO	HS	HS	NA	HS	HS	HS	HS	S	HS	NA	S	S	NA	S	HS	PoI	S	NA	S	NA	1	
NIGERIA/MARKAKIS	S	S	S	S	S	S	LS	S	S	S	S	LS	S	S	S	PoI	UA	NA	S	S	2	
NIGERIA/MC WATTERS	HS	S	S	S	HS	HS	LS	S	HS	LS	S	HS	HS	S	S	PoI	LS	NA	S	S	2	
SENEGAL	HS	HS	HS	HS	HS	HS	E	S	HS	NA	HS	HS	NA	S	HS	AI	HS	HS	HS	NA	1	
TANZANIA	S	HS	S	S	S	HS	HS	S	S	HS	HS	S	S	HS	HS	PoI	HS	S	S	NA	1	

## KEY:

E - Exceptional      UA - Unacceptable      PU - Potentially Useful      LTP - Long-Term Potential  
 HS - Highly Satisfactory      NA - Not Applicable      PoI - Potentially Important      WW - Worldwide  
 S - Satisfactory      L - Limited      AI - Already Important  
 LS - Less Than Satisfactory      PL - Potentially Limited      HP - Highly Promising

<sup>a</sup>See text of individual project profiles for clarification of additional issues considered in this evaluation.

**Bean/Cowpea Collaborative Research Support Program**  
**Summary Program Budget by Distribution Categories**  
**Cumulative Year 3 (FY 1983) through Year 8 (FY 1988) Projections**

CRSP Program Year	US CONTRIBUTION						TOTAL		
	AID CONTRIBUTION						HC	US Fed/Non-	TOTAL
	Mgmt Entity Cost (a)	Country Research Projects (b)	Total AID Contri. (c) (a+b)	Spent in HC's (d)	Total Non-Fed. Contri. (e)	Total US Fed/Non-Fed (f) (c+e)	Contri. (g)	Fed & HC (h) (f+g)	Spent in HC's (i) (d+g)
Cumulative through Year 3 (9-30-83)	1,190,423	3,763,621	4,954,044	1,840,740	1,145,674	6,099,718	756,615	6,856,333	2,597,355
Estimated Year 4	585,840	3,104,134	3,689,974	1,549,711	887,784	4,577,758	616,938	5,194,696	2,166,649
Estimated Year 5	1,031,165	4,756,330	5,787,495	2,948,409	749,744	6,537,239	781,495	7,318,734	3,729,904
Subtotal Est. Actual Expenses	2,807,428	11,624,085	14,431,513	6,338,860	2,783,202	17,214,715	2,155,048	19,369,763	8,493,908
Pipeline--Year 6	30,322	2,238,165	2,268,487	1,141,464	537,160	2,805,647	417,437	3,223,084	1,558,901
Subtotal Initial Grant	2,837,750	13,862,250	16,700,000	7,480,324	3,320,362	20,020,362	2,572,485	22,592,847	10,052,809
Projected Year 6	643,000	2,634,250	3,277,250	1,443,688	463,524	3,940,774	507,430	4,448,204	1,951,118
Projected Year 7	683,000	3,061,000	3,744,000	1,559,326	500,753	4,244,753	548,335	4,793,088	2,107,661
Projected Year 8	727,000	3,305,890	4,032,890	1,683,051	540,953	4,573,843	591,885	5,165,728	2,274,936
Sub-total Ext. Request	2,053,000	9,201,140	11,254,140	4,686,065	1,505,230	12,759,370	1,647,650	14,407,020	6,333,715
TOTAL PROGRAM	4,890,750	23,063,390	27,954,140	12,166,389	4,825,592	32,779,732	4,220,135	36,999,867	16,386,524

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ATTACHMENT G.

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Bean/Cowpea Collaborative Research Support Program  
Summary AID Contributions by Project  
Cumulative Year 3 (FY 1983) through Year 8 (FY 1988) Projections

	Act Exp Thru Year 3	Est Exp Current Year 4	Est Exp Year 5	Total Initial Grant	Projected Year 6	Projected Year 7	Projected Year 8	Total Ext Request	Total Grant & Extension
Botswana/CSU	153,724	192,626	295,330	641,680	193,230	208,690	225,385	627,305	1,268,990
Brazil/BTI	280,878	194,490	278,210	753,578	240,685	261,540	284,065	786,290	1,539,868
Brazil/Bliss	72,273	142,685	228,370	443,328	78,570	82,455	86,650	247,675	691,003
Brazil/Hagedorn	66,702	94,645	144,330	305,677	63,660	67,150	70,925	201,735	507,412
Cameroon/UGA	281,440	165,728	253,880	701,048	200,130	216,140	233,430	649,700	1,350,718
Dom. Rep./UNE	247,390	175,936	329,610	752,936	194,780	211,165	228,860	634,805	1,387,781
Dom. Rep./UPR	312,411	152,687	273,780	738,878	198,600	215,290	233,315	647,205	1,386,093
Ecuador/CORNELL	181,049	159,035	253,560	593,644	114,190	123,325	133,190	370,705	964,309
Guatemala/CORNELL	180,020	142,481	218,050	540,551	114,190	123,325	133,190	370,705	911,236
Honduras/UPR	137,254	168,779	258,580	564,613	176,260	190,360	205,590	572,210	1,136,823
INCAP/WSU	325,726	196,344	301,060	823,130	102,995	108,035	113,480	324,510	1,147,640
Kenya/UCD	350,999	172,088	313,680	836,767	226,420	242,935	260,770	730,125	1,566,892
Malawi/MSU	154,358	166,281	254,730	575,369	103,160	111,415	120,330	334,905	910,274
Mexico/MSU	60,567	103,724	158,320	322,611	75,170	80,385	86,015	241,570	564,106
Nigeria/UGA	183,939	155,370	237,910	577,219	105,930	120,005	135,205	361,140	938,354
Nigeria/MSU	85,363	116,155	177,480	378,998	56,465	60,985	65,865	183,315	562,318
Senegal/UCR	350,904	323,107	346,420	1,020,431	281,320	303,825	328,130	913,275	1,933,706
Tanzania/WSU	338,624	281,973	433,030	1,053,627	308,495	333,975	361,495	1,003,965	2,057,597
<b>TOTAL</b>	<b>3,763,621</b>	<b>3,104,134</b>	<b>4,756,330</b>	<b>11,624,085</b>	<b>2,834,250</b>	<b>3,061,000</b>	<b>3,305,890</b>	<b>9,201,140</b>	<b>20,825,225</b>

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Dean/Cowper Collaborative Research Support Program  
 Project Expenditures in or on behalf of Host Countries Cumulative Year 3 (FY 1983) through Year 8 (FY 1988) Projections

	FY 81-83 Act.	FY 84 Est.	FY 85 Est.	Total Initial Grant	FY 86 Proj.	FY 87 Proj.	FY 88 Proj.	Total Est. Req.	Total Grant
Bolswana--AID	147,068	73,922	112,390	333,300	96,357	104,630	112,300	313,367	646,747
HC Contrl.	28,678	18,445	21,915	69,038	18,760	20,260	21,880	60,900	129,938
TOTAL	175,746	92,367	134,305	402,418	115,117	124,890	134,260	374,267	776,685
Brazil--AID	175,904	180,012	295,673	651,589	178,366	191,010	204,713	574,089	1,225,678
HC Contrl.	116,511	70,420	84,730	271,661	58,000	62,400	67,200	187,600	459,261
TOTAL	292,415	250,432	380,403	923,250	236,366	253,410	271,913	761,689	1,684,939
Cameroon--AID	216,701	118,080	189,995	524,776	149,770	161,750	174,690	486,210	1,010,986
HC Contrl.	86,680	47,230	72,355	206,265	59,900	64,700	69,900	194,500	400,765
TOTAL	303,381	165,310	262,350	731,041	209,670	226,450	244,590	680,710	1,411,751
Dom. Rep.--AID	310,006	161,441	298,788	770,235	191,570	207,690	225,095	624,355	1,394,590
HC Contrl.	60,201	39,830	42,235	142,266	36,850	39,960	43,350	120,160	262,426
TOTAL	370,207	201,271	308,183	912,501	228,420	247,650	268,445	744,515	1,657,016
Ecuador--AID	89,477	76,139	120,780	286,396	54,265	58,595	63,300	176,160	462,556
HC Contrl.	14,647	16,795	18,950	50,392	8,885	9,600	10,370	28,855	79,247
TOTAL	104,124	92,934	139,730	336,788	63,150	68,195	73,670	205,015	541,803
Guatemala--AID	211,671	178,381	330,947	720,999	114,760	122,335	130,535	367,630	1,088,629
HC Contrl.	77,060	45,403	70,160	192,623	32,590	35,170	35,170	98,140	290,763
TOTAL	288,731	223,784	401,107	913,622	147,350	157,505	165,705	465,770	1,379,392
Honduras--AID	49,000	91,822	131,876	272,698	95,305	102,950	111,140	309,395	582,093
HC Contrl.	20,090	36,730	52,750	109,570	38,120	41,200	44,400	123,720	233,290
TOTAL	69,090	128,552	184,626	382,268	133,425	144,150	155,540	433,115	815,383
Kenya--AID	117,615	55,250	195,010	367,875	106,930	114,688	123,063	344,681	712,556
HC Contrl.	89,387	87,500	90,000	266,887	85,000	90,000	95,000	270,000	536,887
TOTAL	207,002	142,750	285,010	634,762	191,930	204,688	218,063	614,681	1,249,443
Malawi--AID	63,489	107,740	147,975	319,204	48,045	51,890	56,045	155,980	475,184
HC Contrl.	24,125	14,800	13,000	51,925	5,500	5,900	6,400	17,800	69,725
TOTAL	87,614	122,540	160,975	371,129	53,545	57,790	62,445	173,780	544,909
Mexico--AID	25,862	52,228	79,190	157,280	37,590	40,195	43,010	120,795	278,075
HC Contrl.	9,828	29,180	33,500	72,508	15,900	17,000	18,200	51,100	123,608
TOTAL	35,690	81,408	112,690	229,788	53,490	57,195	61,210	171,895	401,683
Nigeria--AID	122,068	150,611	263,400	536,079	82,420	91,823	101,965	276,208	812,287
HC Contrl.	112,683	100,675	168,150	389,508	59,480	66,700	74,200	200,380	589,888
TOTAL	234,751	259,286	431,550	925,587	141,900	158,523	176,165	476,588	1,402,175
Senegal--AID	152,673	161,553	170,050	484,276	137,140	148,110	159,960	445,210	929,486
HC Contrl.	62,595	64,620	65,000	192,215	54,800	59,300	63,990	178,090	370,305
TOTAL	215,268	226,173	235,050	676,491	191,940	207,410	223,950	623,300	1,299,791
Tanzania--AID	159,206	142,532	212,335	514,073	151,170	163,660	177,155	491,985	1,006,056
HC Contrl.	54,130	37,310	48,750	140,190	35,855	38,725	41,825	116,405	256,595
TOTAL	213,336	179,842	261,085	654,263	187,025	202,385	218,980	608,390	1,262,651
Uganda--AID	-0-	-0-	300,000	300,000	-0-	-0-	-0-	-0-	300,000
West Indies--AID	-0-	-0-	100,000	100,000	-0-	-0-	-0-	-0-	100,000
Total Program--AID	1,840,740	1,549,711	2,948,409	6,338,860	1,443,688	1,559,326	1,683,051	4,686,065	11,024,925
HC Contrl.	756,615	616,938	781,495	2,155,048	507,430	548,335	591,885	1,647,650	3,802,698
TOTAL	2,597,355	2,166,649	3,729,904	8,493,908	1,951,118	2,107,661	2,274,936	6,333,715	14,827,623

\* Host Country Expenditures only--excludes Management Office and US Institution expenses  
 Host Country contributions are based on actual reported for FY 81-83, approved budgets for FY 84, and historical ratio of AID HC expenditures/HC contributions for FY 85-88.



Bean/Cowpea Collaborative Research Support Program  
Summary AID Contributions by Budget Line Item--Projects Only  
Cumulative Year 3 (FY 1983) through Year 8 (FY 1988) Projections

	Act Exp Thru Year 3	Est Exp Current Year 4	Est Exp Year 5	Total Initial Grant	Projected Year 6	Projected Year 7	Projected Year 8	Total Ext Request	Total Grant & Extension
Salaries	1,481,493	1,144,249	1,255,940	3,881,682	1,148,795	1,232,135	1,322,165	3,703,095	7,584,777
Fringe Benefits	81,532	94,687	111,905	288,124	100,875	108,305	116,325	325,505	613,629
Equip & Fac	381,913	397,929	948,965	1,728,807	220,095	245,990	272,870	738,955	2,467,762
Dom Travel	149,735	114,989	172,735	437,459	104,300	112,650	121,660	338,610	776,069
Intl Travel	373,101	255,907	371,860	1,000,868	242,655	262,065	283,020	787,740	1,788,608
Materials & Supplies	362,204	224,619	415,000	1,001,823	200,685	216,855	235,400	652,940	1,654,763
Other Direct Costs	286,245	425,002	827,715	1,538,962	420,835	455,305	492,540	1,368,680	2,907,642
Total Direct Costs	3,116,223	2,657,382	4,104,120	9,877,725	2,438,240	2,633,305	2,843,980	7,915,525	17,793,250
Indirect Costs	647,398	446,752	652,210	1,746,360	396,010	427,695	461,910	1,285,615	3,031,975
Total Costs	3,763,621	3,104,134	4,756,330	11,624,085	2,834,250	3,061,000	3,305,890	9,201,140	20,825,225

\* AID Contribution to Country Research Projects--Excludes Management Office and Year 6 Estimated Pipeline Expenses

Bean/Cowpea Collaborative Research Support Program  
Summary AID Contribution by Line Item--Projects and MO  
Year 5 (FY 1985) through Year 8 (FY 1988)

	Year 5			Year 6			Year 7			Year 8		
	<u>Projects</u>	<u>MO</u>	<u>Total</u>	<u>Projects</u>	<u>MO</u>	<u>Total</u>	<u>Projects</u>	<u>MO</u>	<u>Total</u>	<u>Projects</u>	<u>MO</u>	<u>Total</u>
Salaries	1,255,940	173,000	1,428,940	1,148,795	182,000	1,330,795	1,232,135	191,000	1,423,135	1,322,165	200,000	1,522,165
Fringe Benefits	111,905	32,000	143,905	100,875	34,000	134,875	108,305	36,000	144,305	116,325	38,000	154,325
Consultant Fees-ERP	-0-	30,000	30,000	-0-	35,000	35,000	-0-	40,000	40,000	-0-	45,000	45,000
Equip & Fac	948,965	15,000	963,965	220,095	5,000	225,095	245,990	2,500	248,490	272,870	2,000	274,870
Dom Travel	172,735	64,000	236,735	104,300	70,500	174,800	112,650	77,500	190,150	121,660	85,500	207,160
Intl Travel	371,860	35,000	406,860	242,655	39,000	281,655	262,065	43,000	305,065	283,020	47,000	330,020
Materials & Sup.	415,000	8,000	423,000	200,685	9,000	209,685	216,855	10,000	226,855	235,400	11,000	246,400
Technical Assistance	-0-	450,000	450,000	-0-	50,000	50,000	-0-	50,000	50,000	-0-	50,000	50,000
Meeting Expenses	-0-	11,500	11,500	-0-	13,000	13,000	-0-	14,500	14,500	-0-	16,000	16,000
Other Direct Costs	827,715	77,665	905,380	420,835	61,000	481,835	455,305	65,000	520,305	492,540	69,000	561,540
Total Direct Costs	4,104,120	896,165	5,000,285	2,438,240	498,500	2,936,740	2,633,305	529,500	3,162,805	2,843,980	563,500	3,407,480
Indirect Costs	652,210	135,000	787,210	396,010	144,500	540,510	427,695	153,500	581,195	461,910	163,500	625,410
Total Costs	4,756,330	1,031,165	5,787,495	2,834,250	643,000	3,477,250	3,061,000	683,000	3,744,000	3,305,890	727,000	4,032,890

\* Excludes Year 6 estimated pipeline expenses

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Management Office Budget Detail

	FY 01 Actual	FY 02 Actual	FY 03 Actual	FY 04 Est.	FY 05 Est.	Total Initial Grant	FY 06 Projected	FY 07 Projected	FY 08 Projected	Total Extension Request	Total Initial Grant
Salaries	102,952	141,917	132,801	167,165	173,000	717,915	102,000	191,000	200,000	573,000	1,290,915
Fringe Benefits	16,929	26,755	26,101	32,035	32,000	134,620	34,000	36,000	38,000	100,000	242,620
Equip. & Fac.	21,603	8,442	12,775	20,000	15,000	77,820	5,000	2,500	2,000	9,500	87,320
Dom. Travel--MO	20,793	28,852	18,350	12,900	14,000	102,903	15,000	16,500	18,000	49,500	152,403
--OOD	6,533	5,525	5,107	13,400	15,000	45,565	16,500	18,000	20,000	54,500	100,065
--TC	14,167	17,620	15,810	17,500	20,000	85,297	22,500	25,000	27,500	75,000	160,297
--ETP	-0-	863	14,597	1,200	15,000	31,660	16,500	18,000	20,000	54,500	86,160
Total Dom. Travel	49,493	53,060	53,872	45,000	64,000	265,425	70,500	77,500	85,500	233,500	498,925
Intl Travel--MO	80,447	11,524	6,103	15,000	10,000	123,074	11,500	13,000	14,500	39,000	162,074
--OOD	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
--TC	-0-	12,898	3,840	-0-	-0-	16,738	-0-	-0-	-0-	-0-	16,738
--ETP	-0-	-0-	4,941	40,000	25,000	69,941	27,500	30,000	32,500	90,000	159,941
Total Intl Travel	80,447	24,422	14,884	55,000	35,000	209,753	39,000	43,000	47,000	129,000	338,753
Mat. & Supplies	4,856	2,826	3,397	7,000	8,000	26,079	9,000	10,000	11,000	30,000	56,079
Technical Assistance	875	1,142	937	40,000	450,000	492,954	50,000	50,000	50,000	150,000	642,954
Consultant Fees--ETP	-0-	870	8,340	25,000	30,000	64,210	35,000	40,000	45,000	120,000	104,210
Pub.--Exec. Sum./Ann. Rep.	-0-	189	3,001	5,000	6,000	14,270	6,500	7,000	7,500	21,000	35,270
--Tech. Summary	-0-	-0-	-0-	2,000	3,000	5,000	3,500	4,000	4,500	12,000	17,000
--ETP Report	-0-	-0-	334	3,000	4,000	7,334	4,500	5,000	5,500	15,000	27,334
--Other	-0-	-0-	787	12,000	32,520	45,307	13,000	14,000	15,000	42,000	87,307
Total Publications	-0-	189	4,202	22,000	45,520	71,911	27,500	30,000	32,500	90,000	161,911
Meeting Expenses--OOD	1,733	1,356	4,019	3,200	4,000	14,308	4,500	5,000	5,500	15,000	29,308
--TC	1,165	2,454	4,478	5,400	6,000	19,497	6,500	7,000	7,500	21,000	40,497
--ETP	-0-	-0-	1,212	1,250	1,500	3,962	2,000	2,500	3,000	7,500	11,462
Total Meeting Expenses	2,898	3,810	9,709	9,850	11,500	37,767	13,000	14,500	16,000	43,500	81,267
Other Direct Costs	12,571	16,375	25,233	32,675	32,145	123,999	33,500	35,000	36,500	105,000	228,999
Total Direct Costs	297,624	279,800	292,331	456,525	896,165	2,222,453	498,500	529,500	563,500	1,591,500	3,813,953
Indirect Costs	101,647	109,488	109,525	129,315	135,000	584,975	144,500	153,500	163,500	461,500	1,046,475
Total Costs	399,271	389,296	401,856	585,840	1,031,165	2,807,428	643,000	683,000	727,000	2,053,000	4,860,428

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FUTURE PLANS1. INTRODUCTION

The problems being addressed by the Bean/Cowpea CRSP by their nature are systemic, rooted deep in a complex of interacting variables and will require long-term research and training to adequately address. To maintain the momentum generated in the initial stage of this Program, the first three-year extension is requested.

The overall goal of this Program remains the same: To make a significant contribution to improving the living conditions of small farm producers in developing countries and to increase the availability of low-cost nutritious foodstuffs in the marketplace for the rural and urban poor.

As was the case with the initial grant, the purpose of this grant is "to provide for the organization and mobilization of financial and human resources necessary for mounting a major multi-institutional US/HC collaborative effort of research and training in bean and cowpea related areas. This effort is expected to provide the knowledge base necessary to achieve significant advances in alleviating the principal constraints to improved production, marketing and utilization of beans and cowpeas in developing countries. A subpurpose is to improve the capabilities of appropriate HC institutions to generate, adopt and apply improved knowledge to local conditions."

2. YEARS ONE THROUGH THREE REFERENCE GUIDE

The MO is responsible for compiling, editing and publishing the following documents:

1983 Annual Report;

Research Publications and Presentations: See  
Pulse Beat, Spring 1984, Insert, page 6.

CRSP Brochure  
Annual Report: Executive Summary  
Annual Report: Technical Summary  
Detailed Annual Report  
External Review Panel Report  
Pulse Beat  
Vanquard  
Research Highlights  
Women-in-Agriculture Resource Guides  
WID Pamphlet

## Program Evaluation

1983 Annual Report: See Section III, External Review Panel Report, pages 50-55, and Follow-Up Chart Insert.

## Programmatic Review

Annual programmatic reviews are done by the appropriate CRSP management groups. To aid in this process, annual reports both detailed and in summary form are made available to the MO by all projects. This material is distributed to all CRSP participants including AID and BIFAD on an annual basis. Additional reports are forwarded to AID as requested. No change is proposed in these procedures.

Additional reviews of the CRSP by AID are done and may coincide with other regularly scheduled reviews. As a result of these AID reviews, adjustments in the program and/or the funding level may be required by AID. All documents are distributed to AID and BIFAD and are available from the MO on request.

## Fiscal Review

Major audits of both the US and HC institutions will be the responsibility of AID. However, the Management Entity, through the MO and the MSU Contracts and Grants Office, will closely monitor the accounts and assign new funds annually in accord with good management practices, BOD policy and the level of AID CRSP allocations.

In order to facilitate this process, quarterly fiscal reports are required of all projects. HC institutions are therefore required to make prompt reports to the US lead institutions. Distributed to AID, TC, BOD and ERP, a composite fiscal report is updated quarterly and is available from the MO. No change is proposed in the management of these responsibilities.

## YEARS FOUR THROUGH EIGHT

### The Management Entity (ME)

The Management Entity for the Bean/Cowpea CRSP is Michigan State University (MSU). There is no change proposed in this designation. MSU will continue to accept program and fiscal responsibility for the performance of this CRSP, performing the functions as detailed in the original grant.

### The Management Office (MO)

The Management Entity maintains an office to carry out most of the operational responsibilities. There is no change proposed in the structure of that office which is composed of:

- Program Director
- Deputy Program Director
- Women-in-Development/Program Specialist
- Administrative Officer
- Secretarial Staff

This office will continue to monitor and facilitate the work of the Country Research Projects and provide support for the management advisory groups of the CRSP (TC, Board, ERP). In addition, the Management Office will increase communication among the projects and with other outside organizations through regular publications, workshops and conferences. An active level of CRSP-wide communication is demonstrated by the MO whose documented average daily output is twenty-five phone communications (local and long distance), one telex/cable (incoming or outgoing), twenty-five incoming pieces of mail handled, fifty pieces of mail outgoing, and two visitors (local or from out of town). There are multiple phone and mail communications between the MO and the AID program officer weekly.

### The Board of Directors (BOD)

The BOD is comprised of five members representing the nine lead institutions of the CRSP. The members come from among the Institutional Representatives of the lead institutions so designated by the Presidents of those institutions. The group invites consulting members from among the administrators of CRSP Host Country institutions. No change is proposed in this structure.

The BOD reviews the activities of the CRSP and recommends policy to the Management Entity. It also reviews the annual budgets of the CRSP and monitors the overall fiscal management.

Because of the significant role of the BOD and the limited number of meetings held per year (average three), the BOD requests a change in terms of office from two years to three years. The change is justified because experience has shown that it requires nearly a year for a Board member to totally grasp the complex CRSP operations. The involvement in time and learning reinforce the appropriateness of term extension. All institutions have now been represented on the Board. This change was communicated to all of the Institutional Representatives and concurrence was received.

## The Technical Committee (TC)

The TC is made up of seven researchers, five from the US institutions, one from the International Agricultural Research Centers and one from the Host Country institutions. It functions as the internal project review and coordination panel and acts as the principal advisory group on technical operations. No change is proposed in the organization or operations of this group.

## The External Review Panel (ERP)

The ERP is made up of seven eminent scientists, representing an array of disciplines, who serve the CRSP by conducting annual external reviews of the projects and general management. The group organizes its reviews as it deems appropriate at both US and HC sites, utilizing the many written materials provided. No change is proposed in the structure of the group.

The ERP will conduct its third CRSP-wide review in 1984. At that time it is proposed that members begin rotating-off the Panel in a way that will allow for continuity and appropriate heterogeneity in the group. Using a 2-2-2-1 pattern would establish a four-year term for the members of the group. This plan, originally suggested by the ERP, has been approved by the CRSP Board of Directors.

## WOMEN-IN-DEVELOPMENT STRATEGY

Recognizing the significant role played by women in many developing countries in bean and cowpea production, this CRSP has incorporated a strong Women-in-Development focus and has included a WID Specialist on its Management Office staff. This was originally a quarter-time appointment but effective September, 1983 it became a full-time position with half of the work effort given to WID and the remainder to more general program-related tasks such as editing the CRSP newsletter and annual reports. A Women-in-Development pamphlet that provides an overview of women's roles in bean and cowpea production in the HCs and outlines Bean/Cowpea CRSP strategies to incorporate women as agricultural producers, researchers and students has been prepared and is included in\*Section III. A work plan has also been developed and is being implemented. Briefly, three areas of concentration are identified: those with a project focus, those related to the program as a whole and those that address broader policy issues of concern to the WID field.

## Project-Centered Areas of Concentration

The major purpose is to increase awareness of how the role played by HC women and children in agriculture may affect, and be affected by, project activities. This input is tailored to the individual projects and takes various forms:

- A. For those projects identified by the External Review Panel as needing greater concentration on WID issues the following plan has been adopted:
  1. The Project Paper, Annual Reports, Trip Reports, ERP Reports and other relevant materials are reviewed in order to document the extent to which goals and accomplishments have addressed WID issues.



2. Planning discussions are held with the PI so as to better identify where WID inputs may be most appropriate.
  3. A Women-in-Agriculture Resource Guide is prepared. This includes:
    - a. A description of women's roles in the farming systems of the HC drawn largely from secondary source materials.
    - b. An examination of the implications of this literature for project activities.
    - c. Information on women's organizations in the HC and, where possible, identification of US and HC researchers who could serve as consultants to the project.
    - d. An annotated bibliography on farming systems and women's roles in agricultural production in the HC.This guide is made available to US and HC project researchers.
  4. Once a specific strategy is agreed upon, efforts are made to assist in implementation.
- B. A slightly different approach is used with regard to those projects the ERP judged as demonstrating adequate attention to WID:
1. By reading the Project Paper, Annual Reports, Trip Reports and other relevant information, the WID Specialist identifies WID concerns that have been successfully addressed and documents the methodologies used.
  2. This information is disseminated to the other projects. For example, copies of articles where WID concerns are well addressed are circulated and PIs are familiarized with successful data collection techniques used in their geographic/cultural areas.
  3. Project researchers are encouraged to make mention of WID issues in their publications and to further expand their efforts to incorporate women through:
    - a. Hiring competent female researchers and technicians, both in the US and in the HCs. Where possible, the WID Specialist assists in this process by providing lists of relevant organizations and individuals for consideration.
    - b. Training of HC and US females in both degree and non-degree programs.

#### Program-Centered Areas of Concentration:

In addition to project-centered activities, a number of program-wide activities are carried out by the WID Specialist:

- A. Workshops and Training: Training of HC nationals is an important component of the Bean/Cowpea CRSP. Many projects include opportunities for individuals to pursue graduate degree studies and/or participate in non-degree programs. As the Training Tables in\*Section I, pages 23-25, indicate, efforts to recruit women have been successful and will be continued in the future. Attention will also be paid to familiarizing researchers and students with women's roles in agricultural production in developing countries. The feasibility of locating existing WID curricula, or designing short seminars which could be held either separately or in conjunction with other Bean/Cowpea CRSP programs or workshops, is being investigated. Where possible, those individuals in degree programs may also be encouraged to take a course or participate in some formal offering related to Women-in-Development. In a related vein, students who have conducted research addressing women's roles in agricultural production and/or processing



may be encouraged to present their findings at appropriate professional association meetings. (AWID and others). Training is of particular importance because many of the HC students will command top research and administrative positions when they return home. In these policy making roles they may significantly influence training and research opportunities for women and build WID concerns into development efforts.

- B. While the Bean/Cowpea CRSP newsletter, Pulse Beat, is already an important means of disseminating information, it can be used to address WID concerns in a more systematic fashion. For example, brief reviews of relevant books and articles can be included, female researchers and students highlighted and WID-related findings from the various projects reported.
- C. Being well acquainted with the eighteen projects, the WID Specialist identifies areas of concern to women that are not currently receiving attention in the Program. Recommendations are made as to how these can be incorporated in future planning efforts.

#### Documenting the Effectiveness of WID

As the program evolves, an increasingly important responsibility will be to demonstrate the effects of having incorporated females as researchers, students and agriculturalists in the projects. This will be done through writing articles, participating in conferences and seminars and other appropriate means.

This plan of work was presented to the Technical Committee on April 26, 1984 and to the Board of Directors on May 10, 1984 where it received a positive endorsement. One Women-in-Agriculture Resource Guide (on Cameroon) has been prepared to date and is included in Section III. of the 1983 Annual Report.

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## PROJECTS

Project activity will continue through years four and five under essentially the same plans. The major bean and cowpea constraints are being attacked and as new technology is developed, this is verified in farmer trials and site specific adaptations. Exceptions are the projects that the ERP and BOD reviews indicated were not acceptable. These projects have developed new plans; however, they still impact on the same constraints and have much the same goals.

Years six, seven and eight will see a shift of emphasis to more adaptive research and the incorporation of newly developed technology into farming systems plans and commercial use.

Given the nature of plant research, however, there will continue to be new strains of disease and insects, different environmental stress problems and the desire for increased yield and improved quality which mean a need for continued basic research. New methodologies and techniques of research are developed which help in solving problems, but new problems in crop production continue to arise.

The major contribution of the CRSP and its current set of projects is the adaptation of current technology to developing country situations the training of staff and the development of institutions that can provide sustained research competence in the LDCs.

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## BEAN/COWPEA CRSP LOG FRAME

Program Goal	Objectively Verifiable Indicators	Verifiers	Assumptions
<p>Make a significant contribution to improvement of living conditions of small farm producers in developing countries and increase the availability of low cost, nutritious food in marketplace for the rural and urban poor.</p>	<p>Development of important research results addressing identified constraints.</p> <p>Stronger national research program addressing identified constraints.</p> <p>CRSP products accepted by farmers, extension agents, IIC private initiatives in ways which will advance goal.</p> <p>Increased participation of women.</p>	<p>Annual reports and positive IC/ERP reviews of progress.</p> <p>Increased overall size of national program research team with greater multidisciplinary competence and IIC investment in the project.</p> <p>Adaptation of findings by external agents: farmers, IARCs, extension agents, commercial interests.</p> <p>Increased male and especially female CRSP graduates in the professional pipeline.</p>	<p>Food and nutrition problems in the developing nations can be solved in part through research.</p> <p>Collaboration between IIC and IIC can be of mutual benefit.</p> <p>Achievement from this program can reach the rural and urban poor.</p> <p>Achievements of this program can contribute to development in ways which do not increase the marginalization of women and their families.</p>
Objective	Objectively Verifiable Indicators	Verifiers	Assumptions
<p>Organize and mobilize financial and human resources necessary for mounting a major multi-institutional US/IIC collaborative effort in research and training.</p>	<p>US/IIC administrations' support of projects.</p> <p>IIC and US teams functioning with good working relationships established.</p>	<p>Smooth management with good communication with MO.</p> <p>US/IIC quarterly and annual reports.</p> <p>Formal commitment of participants.</p>	<p>IIC will maintain interest in the commodity and in CRSP participation.</p>
<p>Provide the knowledge base necessary to achieve significant advances in evaluating the principal constraints to improved production, marketing and utilization of beans and cowpeas in the region.</p>	<p>Research teams operating with effective level of equipment, supplies and technical support.</p> <p>Effective communications among all participants especially among those working on the same constraints across projects.</p>	<p>Consistent pattern of student training established.</p> <p>Documentation of secondary data.</p> <p>Primary data analyses available in reports and publications.</p>	<p>Coups and other forms of political or social disturbances will not be of a magnitude at project sites as to severely and insurmountably affect progress.</p>
<p>Improve the capabilities of IIC institutions to generate, adopt and apply improved knowledge to local conditions.</p>	<p>Mechanism established for the identification and support of US and IIC male and female CRSP students.</p> <p>Useful secondary data identified.</p> <p>Improved research infrastructure with laboratory and field research in process.</p>	<p>IIC contributions to CRSP documented in each year's budget analysis.</p>	<p>Necessary basic equipment, facilities and supplies will be available or acquirable within reasonable time frame.</p> <p>There is a sufficiently large pool of students from which to draw for advanced training at least at the secondary school graduate level.</p>

hjh

ts	<u>Objectively Verifiable Indicators</u>	<u>Verifiers</u>	<u>Assumptions</u>
<p>g, better quality yields pro- under stressful conditions.</p> <p>er understanding by US and IC laborators of the socio-cultural the agri-cultural environment.</p> <p>cts of research packaged ropriately for consumer use.</p> <p>mation dissemination for a ty of audiences.</p> <p>ction and utilization research ings useful for the wider rch community.</p> <p>male and female graduates of ling programs.</p>	<p>Yield increase under an array of stressful conditions to which produced varieties are resistant.</p> <p>Multidisciplinary research generated.</p> <p>Informational materials available.</p> <p>Interest of wider international and national research and development community in products.</p> <p>Better health among those making use of project outputs.</p> <p>Male and especially female graduates returning to IC research institutions.</p>	<p>Yield data from local and national census.</p> <p>Reports of projects incorporate and integrate socio-cultural with agri-cultural information.</p> <p>Materials acknowledged as received by many groups and increased con- sumer demand.</p> <p>Requests from professional community for information and products increased.</p> <p>Site visits.</p> <p>CRSP graduates identified in IC research positions.</p> <p>Increased numbers of male and female students continually in short-term and long-term training.</p>	<p>There exists in the IC at least a skeletal infrastructure for informa- tion dissemination.</p> <p>There are IC and US women sufficiently interested in advanced education and professional employment to work their way through the system when it is opened to them.</p>

s	<u>Objectively Verifiable Indicators</u>	<u>Verifiers</u>	<u>Assumptions</u>
<p>sary long-term/short-term nel from IC/US institutions an communicate with each other.</p> <p>cial contributions from AID and d IC institutions.</p> <p>ment such as vehicles, lab, and office equipment.</p> <p>itles and supplies for IC/US</p> <p>ement support from MO, US and stitution administrations.</p> <p>mation and support from external s.</p>	<p>Annual allocation from AID.</p> <p>CRSP funds flowing on regular bases to US and IC research teams.</p> <p>Annual plan of work and budget docu- ment with US/IC contributions.</p> <p>Frequent and regular communication among AID, MO, US and IC.</p> <p>Participation in CRSP research and training activity by external groups (i.e., AID-sponsored FSR teams, INRCs, USAID missions).</p>	<p>Increase in communications initiated by participants with one another.</p> <p>Review of annual documents by IC and OOD.</p> <p>AID letter of credit authorizing funds.</p> <p>Regular reimbursement requests with quarterly reports.</p> <p>AID approvals to purchase indicated equipment received.</p> <p>Site visits.</p> <p>Meetings and other forms of com- munication with external agents.</p>	<p>AID will generate necessary approvals in timely fashion.</p> <p>AID will have funds available for use by the CRSP.</p> <p>All parties making input will continue to feel the mutual benefits worth the investments.</p>

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## ATTACHMENT J

Sector Council for Agriculture  
Agency for International Development  
Washington, D.C. 20523

### SECTOR COUNCIL FOR AGRICULTURE

#### Minutes of Regular Meeting

Volume III, No. 13

August 7, 1984

Council members and alternates present included: J. S. Robins, Council Chairman, S&T/FA; Ray Hooker, ASIA/TR/ARD; Albert (Scaff) Brown, LAC/DR/RD; Ans Burgett, AFR/TR/ARD; Archie Hogan, NE/TECH/AD; Donald McClelland, PPC/PDPR; Anson R. Bertrand, S&T/AGR; William F. Johnson, BIFAD/S; Donald E. Anderson, S&T/RD; Don Wadley, Acting Executive Secretary, S&T/FA

Observers and project review participants included: Priscilla Boughton, BIFAD/S; John Yohe, S&T/AGR; Ralph Cummings, Jr. S&T/FA; Anne del Castillo, LAC/DR/RD

#### Agenda items discussed:

1. Institution-Building Training Module - Priscilla Boughton discussed BIFAD's plans to strengthen and expand training on LDC institution-building as follow-up to a successful Pre-Departure Orientation Workshop at the University of Hawaii. The proposal is to further develop and refine the module(s) with the assistance of professional training consultants and draw on current examples and experience from AID in a September workshop. In addition to orientation sessions for university teams going overseas, the module could be used for AG/RD workshops for AID officers, and possibly for foreign participants studying in the U.S. The tone and results of Council discussions were:
  - orientation and professional update for proposed target groups on institutional development (IB) is needed and would be useful
  - an indepth look at institution-building (IB) is needed (e.g. lack of LDC ability to adopt and adapt; clarification of IB beyond organization; approaching IB from objectives and tasks to resolve development problems rather than focus on establishing physical plant/organization, etc.)
  - Council members agreed to identify appropriate officers in their bureaus to participate in small group discussion in mid-September. Bureau representatives to call recommended participants to Priscilla Boughton or Frank Fender, BIFAD.
2. Bean/Cowpea CRSP Review - The Council unanimously approved a three-year extension of the Bean/Cowpea CRSP.

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Dr. Anson Bertrand, S&T/AGR, introduced the subject, then John Yohe gave a sketch of the project, institutional mechanisms, accomplishments, and a projection for the next three years. Extensive background materials were provided earlier to bureau representatives on this CRSP. Members were most positive on the structure, implementation, and accomplishments of the CRSP. There was agreement that the external evaluation process was highly effective. The long-term research linkages and cost effectiveness are also highly relevant. The Women in Development component also strengthened the CRSP.

The focus on research was reaffirmed although there are recognized informal opportunities for extension linkages, e.g. training. Extension will come through existing national systems; variety releases to date are positive examples. On the management side, progress has been made to improved travel planning, but additional emphasis is required. The few in-country problems were mostly related to lack of principal investigator counterpart staff. Again, acceptable progress is being made. Effort is also being focused on stronger management linkages between AID and the CRSP Management Entity.

3. Council Agenda - A process to develop priority agenda items and an agenda focus for the next year was discussed. Scaff Brown encouraged consideration of priority items and realistic relationship to JCARD activities and gave examples. Robins requested representatives to give the subject some thought and provide suggestions on priority agenda items to him before Labor Day.
4. Information Items
  - a. Robins reminded members of AID Centers' Day scheduled Wednesday, October 31. John Eriksson is exploring interests of senior officers in all bureaus for specific meetings with IARC Center Directors, including PPC (structural interaction, policy dimensions such as FAO and IBPGR).
  - b. Projection of Agriculture Sector Council Meetings and Related Activities:
    - August 14; JCARD - 1408 NS
    - August 28; Agriculture Sector Council - 6941 NS
    - September 5 (afternoon) 6 and 7 (morning): Council sponsored  
Agricultural Technology Management Workshop - 1408 N.S.
    - September 7; Sector Council members' farewell luncheon for  
Dave Schaer (proposed)
    - September 10 (afternoon) - 11 (morning): IARC Scientific Liaison  
Officers' sessions - NAS Room 150
    - September 18; Agriculture Sector Council - 2248 NS
    - Mid-September; 2-day BIFAD Workshop to further develop and refine  
institution-building training packages (bureaus to suggest  
possible representatives for small discussion group see 1. above).