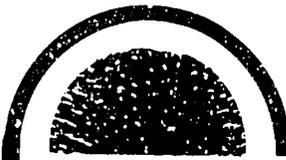


GUIDELINES FOR THE COLLABORATIVE
RESEARCH SUPPORT PROGRAMS

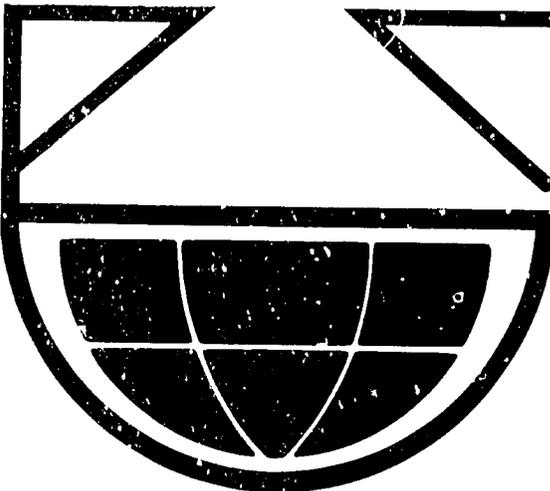
UNDER TITLE XII OF THE
INTERNATIONAL DEVELOPMENT AND
FOOD ASSISTANCE ACT OF 1975



JUNE 21, 1985

BOARD FOR INTERNATIONAL FOOD
AND AGRICULTURAL DEVELOPMENT

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON D.C. 20523



**GUIDELINES
FOR
COLLABORATIVE RESEARCH SUPPORT PROGRAMS**

under Title XII

June 21, 1985

TABLE OF CONTENTS

	Page
FOREWORD	iv
APPROVAL BY THE ADMINISTRATOR, AGENCY FOR INTERNATIONAL DEVELOPMENT	v
EXECUTIVE SUMMARY	vi
GLOSSARY	ix
I. INTRODUCTION	1
A. Background	1
B. Purpose	1
II. THE CRSP	4
A. Concepts	4
Figure 1	5
B. Program Approach	8
III. THE CRSP STRUCTURE	10
A. Planning Entity	10
B. Management Entity	10
C. Organization of Participating Institutions	10
1. Board of Directors	11
2. Administrative Council (Institutional Representatives)	11
3. Technical Committee	11
4. External Evaluation Panel	12
IV. PLANNING A CRSP	14
A. Priority Establishment	14
B. Exploratory Studies	14
C. The Planning Process	15
1. Initiating a Planning Activity	15
2. The CRSP Plan and A Grant Proposal	18
V. IMPLEMENTATION OF CRSPs	22
A. Responsibilities and Roles	22
1. AID	22
a. AID/Washington	22
b. USAID Country Missions	22
2. Management Entity (ME)	23
3. Participating U.S. Institutions	25
4. Participating Developing Countries Institutions	26
5. BIFAD-JCARD	27

TABLE OF CONTENTS (continued)

	Page
B. Organizing U.S. and Developing Country Components of Collaborative Programs	27
1. Grant Agreements	27
2. Subgrant Agreements	28
3. Organizational Structure of Participating U.S. Institutions	28
4. Reconfirming or Selecting Developing Country Sites and Institutions	28
5. Other Scientific Linkage - International Network	29
C. Program of Work	30
1. General	30
2. Annual Research Work Plans	30
3. Institutional Building and Training	31
D. Budget, Financing and Programmatic Management and Control System	31
1. General	31
2. Program and Fiscal Management and Accountability	32
a. ME Responsibility and Fiscal Accountability	32
b. Use of Funds	33
c. Matching Requirements	34
d. Use of Non-Title XII Institutions	36
e. AID Mission Buy-Ins to CRSPs, and Joint Programs with International Agricultural Research Centers	36
E. Reviews and Evaluations	37
1. Internal Reviews	37
2. External Evaluations	37
3. Triennial Review Process	38
4. In-Country Advisory Committees	40
5. Pass-through Funding	40
F. Travel	41
1. General	41
2. Clearances	41
3. Reports	41
VI. CRSP OUTPUTS	42
A. General	42
B. Extending the Results of CRSPs	42
C. Overseas Operations	42
1. USAID Missions	42
2. Memorandum of Understanding	43

FOREWORD

These Guidelines are an amendment developed by the Joint Committee on Agriculture Research and Development, recommended by the Board for International Food and Agricultural Development, and approved by A.I.D. The Guidelines that were amended were developed by the former Joint Research Committee, dated October 10, 1979, which amended those dated October 11, 1977. This amendment incorporates the experience gained in planning and implementing the Collaborative Research Support Programs since the first ones were initiated in 1978. The amendment also reflects new and changed policies and regulations.

These amended Guidelines were approved by the Administrator, M. Peter McPherson, for the Agency for International Development on June 21, 1985 (p. v).

JUN 17 11:21 AM '85
SENIOR ASSISTANT ADMINISTRATOR

MAY 31 1985

ACTION MEMORANDUM FOR THE ADMINISTRATOR

FROM: S&T, N. C. Brady *NCS*

SUBJECT: Guidelines for Collaborative Research Support Program

Problem: To approve revised Guidelines for Collaborative Research Support Program (CRSP) as the basis for awarding and administering CRSP grants.

Discussion: The original Guidelines for the CRSP was cleared, approved, and issued by the Agency in October 1977. The guidelines were amended October 11, 1979, to clarify the role of USDA and the 25 percent matching requirement, and to accommodate GC's concern regarding the process of selecting participants.

The current revision (attached) incorporates the experiences gained in planning and implementing the CRSP program since 1978 and reflects new and changed policies and regulations. It has been negotiated over the past year by JCARD and GC, both of which have approved it, as did BIFAD at their meeting on October 11, 1984. Regional Bureau, PPC, SER/CM, and S&T representatives have participated in the development of the Guidelines through their participation on JCARD.

Recommendation: That you approve the attached revised Guidelines for the Collaborative Research Support Program, dated December 13, 1984, for use in administering CRSP programs.

Approved: *Ab*

Disapproved: _____

Dated: 6-21-85

Attachment:
Guidelines for the CRSP

GUIDELINES FOR
COLLABORATIVE RESEARCH SUPPORT PROGRAM

EXECUTIVE SUMMARY

During the last 100 years the American land grant university system of agricultural research, along with federal and private initiatives, has evolved a powerful and proven capability for boosting the productivity, distribution and utilization of products from land and water. The Collaborative Research Support Program (CRSP) has been put into place to link the capabilities of the U.S. agricultural universities to the needs of developing nations worldwide. This step was made possible by the United States Congress through passage of the International Development and Food Assistance Act of 1975. The Act in Title XII authorized the President.... "to provide assistance on such terms and conditions as he shall determine.... to provide program support for long-term collaborative university research on food production and distribution, storage, marketing, and consumption." The Act also provides that "Programs under this title shall be carried out so as to... (2) take into account the value to United States agriculture of such programs, integrating to the extent practicable the programs and financing authorized under this title with those supported by other Federal or State resources so as to maximize the contributions to the development of agriculture in the United States and in agriculturally developing nations."

Between 1977 and 1982, AID, operating under authority of the Title XII Amendment, implemented seven CRSPs. These were undertaken with the advice and participation of the Joint Research Committee (JRC) of the Board for International Food and Agricultural Development (BIFAD). In 1982 JRC was replaced by the Joint Committee on Agricultural Research and Development (JCARD). AID, BIFAD, Title XII universities and institutions of developing countries have worked together in developing guidelines and determining priorities for planning and initiating CRSPs.

These guidelines supersede the 1979 edition which amended the 1977 edition. They provide illustrations and guidance for planning, initiating and operating CRSPs while preserving the flexibility needed to allow each CRSP to deal with unique circumstances. Details are provided on the sequences and approvals required for the initiation of a CRSP, for the kinds of institutions which must be involved and the commitments they must make. The unique roles of the Planning and Management Entities visualized for each CRSP are defined and their creation and operating activities are prescribed. Special consideration is given to interaction with AID Missions and International Agricultural Research Centers (IARCs) in both the planning and the operational phases of CRSPs. Reviews and evaluations, both informal and formal involving internal and external personnel are described. The operational limits of the CRSP concept are defined as are the expected outputs from a CRSP.

In developing the CRSP concept AID, JRC (JCARD), and BIFAD introduced new methods of planning and implementing research, and new mechanisms for collaborating with U.S. universities in research programs that offer a number of benefits to universities and AID as well as to developing countries. Some of the principle characteristics, which are amplified in the guidelines, are summarized as follows:

- (1) CRSPs have a dual goal aimed at improving agriculture both in the developing countries and in the United States;
- (2) participating U.S. institutions agree to contribute at least 25 percent of the cost of the CRSP from state or other non-federal resources (in finances or in kind), justified on the basis of benefits that can accrue to their state's agriculture and their institution;
- (3) each CRSP is designed to achieve collaboration between scientists of participating U.S. and developing country institutions;
- (4) each research program is planned to address priority constraints identified jointly by AID, BIFAD, U.S. universities, and host country institutions;
- (5) host country governments also contribute to the programs from their resources in kind, financing, and personnel;
- (6) the research of each CRSP is designed on a program basis, rather than a project basis, to address multisectoral, biological, physical, social and economic constraints by collaborative efforts of multidisciplinary teams working on several projects;
- (7) the science and technology necessary for research on these constraints are by necessity drawn from a number of U.S. universities because no single university normally would have available the number of disciplines required;
- (8) the participating U.S. universities organize themselves for program management and financial accountability under a lead institution, chosen by them, to serve as the management entity, with policy directions coming from a board of directors elected by the participating institutions;
- (9) AID exercises its management responsibility with the assistance of the management entity which is held responsible for the program and accountable for AID funds distributed by the management entity to participating institutions by subgrants under signed agreements; thus, AID's management burden is lessened, since it deals only with the management entity;
- (10) an institutional development component is built into each CRSP through training and participation of host country scientists;

- (11) the aim of each CRSP is to become integrated into USAID's country strategy of the developing country site, and to tie into and provide scientific research support to related U.S. technical assistance programs as a means of disseminating research results in the country;
- (12) international scientific linkages are established through cooperative activities and exchange of scientific information with international agricultural research centers under the Consultative Group for International Agricultural Research (CGIAR), with research institutions of developed nations, and with scientists of non-participating U.S. universities;
- (13) research in these programs may be conducted in "graduate countries," justified on the basis of the regionality of the program and the contributions such countries can make to the program and to neighboring less developed countries; and
- (14) the research work of each CRSP is evaluated periodically by a peer group as an external evaluation panel composed of top U.S. and other country scientists from institutions not involved in the program.

The CRSP instrumentality has gained acceptance within AID, within developing countries and among participating and collaborating institutions as experience has been gained. These guidelines which are based on several years experience involving several CRSPs are intended to improve the performance of existing CRSPs and to facilitate the consideration and initiation of new CRSPs as appropriate.

GLOSSARY

1. CRSP Collaborative Research Support Program
2. BIFAD Board for International Food and Agricultural Development
3. USDA United States Department of Agriculture
4. USDC United States Department of Commerce
5. AID Agency for International Development (of the United States Department of State)
6. Title XII The Title XII Amendment to the International Development and Food Assistance Act of 1975 as passed by the United States Congress and subsequently amended.
7. JCARD Joint Committee on Agricultural Research and Development
8. IARC International Agricultural Research Center
9. Participating Institutions Those institutions that participate in the CRSP under a formal agreement with the management institution which receives the AID grant.
10. Collaborating Institutions Institutions which form a partnership arrangement with a lead participating U.S. institution to collaborate on a specific research project.
11. CGIAR Consultative Group on International Agricultural Research
12. Ribbon Projects Projects identified by AID which cross countries and regions and which receive inputs from multiple sources. CRSPs have some of the characteristics of ribbon projects.
13. Bilateral Programs Assistance programs involving arrangements between a single developing country and a single donor country.
14. MOU Memorandum of Understanding
15. USAID United States Agency for International Development
16. PE Planning Entity
17. ME Management Entity
18. AID/W Washington headquarters of the United States Agency for International Development in the Department of State, Washington, D.C.

19. Host Country A developing country in which a CRSP has formal activities.
20. Board of Directors (for a CRSP) An advisory body selected to assist, advise, and make policy recommendations to the ME in the execution of a CRSP. Members represent the interests of the CRSP.
21. Administrative Council (for a CRSP) A group of university administrators, composed of a representative from each U.S. institution participating in a CRSP; sometimes called Board of Institutional Representatives; each member represents the interests of higher institution as well as the CRSP.
22. PI Principle Investigators - scientists in charge of the research for a defined segment or a scientific discipline of a CRSP.
23. TC Technical Committee - a group of scientists participating in the research of the CRSP as PIs, selected to help guide the scientific aspects of the research program of a CRSP.
24. EEP External Evaluation Panel - senior scientists not involved in the CRSP and selected externally for their ability to evaluate objectively the scientific progress and relevance of a CRSP program on an ongoing basis.
25. Mission A formally organized USAID unit in a developing country led by a Mission Director, or a Country Representative.
26. Exploratory Study A study undertaken to define the feasibility of conducting a CRSP, or to provide supplementary information needed for definition of approach, scope, and interests of U.S. institutions in participating in a CRSP.
27. Matching Requirement That sum of resources, financial or in-kind, which participating U.S. institutions must collectively contribute to a CRSP program as defined in the grant document.
28. Peer Panel A small group of experts selected to assist with some aspect of planning or implementing a CRSP, sometimes used to help identify the most appropriate participating institutional members for participating in a CRSP.
29. Ecological Zone A geographical boundary irrespective of political boundaries, representing common climate, ecology, soils, and other natural features for growing crops, raising animals, or engaging in aquaculture.

30. Global Plan The overall plan of a CRSP for research on problems and constraints, global in nature, whose results are applicable and transferable regionally and globally (worldwide).
31. Grant Proposal The formal document submitted by an ME to AID, proposing a CRSP for receiving a grant outlining the manner of implementation of the program, and showing the budgetary requirements.
32. Grant Agreement The formal legal document which represents a binding agreement between AID and the ME institution for a CRSP. This is the legal document for the CRSP, recognized as such by AID and the recipient institutions.
33. Subgrant Agreement A document representing a subagreement made between the ME and a participating institution under authority of the grant agreement by the ME with AID.
34. Program Manager An official AID employee designated to oversee a CRSP on behalf of AID.
35. S&T Bureau Bureau for Science and Technology, a central bureau of AID in Washington, charged with administering worldwide technical and research programs for the benefit of U.S. AID-assisted countries.
36. Baseline Data That information and data base in some sector or aspect of a developing country which is necessary to measure change in the future.
37. Institutional Development Improvement in the capability of institutions in developing countries to conduct developmental programs for agriculture and other sectors, or for implementing educational/training, research, health and other public programs. Improvements may include physical facilities, equipment, furnishings, transportation, organization, but refers primarily to development and training of professional cadre.
38. CRSP Panel A small group of senior representatives drawn from the University Community and AID to assist JCARD in executing its responsibilities vis-a-vis CRSPs as defined by BIFAD.
39. Prime Country (Site) A country site selected for collaboration in a CRSP because of its interest and scientific and institutional research capability and because its ecology represents that of a wider regional zone.

40. Graduate Countries Countries formerly classified as developing countries which have progressed to the point that AID support has been stopped or reduced because the per capita income has risen to the limit defined by the United Nations for technical assistance.
41. Triennial Review A formal review by AID of a CRSP with joint participation of JCARD/BIFAD, which takes place every third year and is used as a basis for roll-forward authorization and funding.
42. Buy-In A procedure whereby an AID Mission makes a formal financial commitment to one or more facets of research in a CRSP which coincides with the country interest of the Mission. This can be done by contributing to the CRSP Grant with the advice and consent of the responsible AID Regional Bureau and the S&T Bureau; or it may be done through a separate grant with the consent of the respective Bureaus and the CRSPs ME.
43. Agricultural Sector Council An internal AID body selected to represent different AID organizations and interests related to agricultural, nutrition, and rural development. The Council is advisory to the Agency's Senior Assistant Administrator and to the AID Administrator.
44. Pass-through Funding Funds transferred from a CRSP entity to a cooperating developing country entity for purposes of supporting in-country activities of the CRSP.

GUIDELINES
FOR
COLLABORATIVE RESEARCH SUPPORT PROGRAMS (CRSPs)^{1/}

I. INTRODUCTION

A. Background

The International Development and Food Assistance Act of 1975, which amended the Foreign Assistance Act of 1961, as amended, provided a Title XII, entitled "Famine Prevention and Freedom from Hunger." Section 297(a) of Title XII provides authority for a totally new type of research program. This program is identified as follows: ".... to provide program support for long-term collaborative university research on food production, distribution, storage, marketing and consumption."^{2/}

B. Purpose of these Guidelines

The purpose of the Guidelines, hereinafter referred to as "Guidelines," is to outline general concepts and approaches to aid in the planning, management, and evaluation of long-term collaborative university research programs as mandated in Title XII. Section 297(b) states that programs under Title XII shall be carried out so as to utilize and strengthen the capabilities of universities in agricultural research to be conducted in the cooperating nations, at international centers, or in the United States; they should take into account the value to United States agriculture of such programs; and whenever practicable, they should build on existing programs and institutions including those of the universities, the United States Department of Agriculture (USDA) and the United States Department of Commerce (USDC).^{3/}

^{1/} This paper outlines general concepts and approaches to guide CRSP efforts which have come into being since the initiation of the first program in 1978 and to aid in the establishment of new CRSP efforts. The creation and continuing implementation of research programs under these guidelines must be in accordance with applicable U.S. laws, regulations and policies.

^{2/} The International Development Cooperation Act of 1979 amends this provision by inserting, "in the developing countries themselves to the maximum extent practicable" immediately after "university research." AID, BIFAD and the participating universities have given special consideration to this point of Congressional emphasis.

^{3/} A major distinction between "collaborative research" and "centrally funded contract research" deals with the contribution of a specified level of university resource commitment to the program since such contributions are required for all "collaborative research" programs, but not for "centrally funded contract research" projects. For the purposes of these guidelines, the definition of a U.S. university is as described in Section 296(d) of Title XII.

Section 298(d) of Title XII provides that "The President may authorize the Board for International Food and Agricultural Development (BIFAD) to create such subordinate units as may be necessary for the performance of its duties including, but not limited to, the following: "A Joint Research Committee to participate in the administration and development of the collaborative activities described in Section 297(a)(3) of this Title." Under this authority a BIFAD Joint Committee on Agricultural Research and Development (JCARD) has been established to perform these and other functions, combining the functions of the former Joint Research Committee and the Joint Committee on Agriculture Development.

The functions and roles of BIFAD/JCARD have been defined in the BIFAD Charter of 1976 as amended in 1982. The JCARD role embraces all research activities encompassed under Title XII as well as other Title XII activities in development assistance programs. These other research activities in which JCARD is involved include research programs funded at central, regional, or Mission levels. Also included are research activities of the International Agricultural Research Centers (IARCs). However, these guidelines deal only with long-term collaborative research support programs (CRSPs) involving U.S. institutions as defined in these Guidelines. They relate primarily to JCARD's role in this respect.

These revisions build upon the Guidelines issued October 11, 1977 and October 10, 1979 and bring them up to date to reflect experiences and accepted BIFAD/AID-University policies, procedures, and practices that have evolved since the planning of the first CRSP was initiated in 1977. On the basis of this experience, this document is constructed to include details of processes to be followed in selecting a planning entity, in planning a CRSP program, and in selecting participating institutions and a management entity for a CRSP. The Guidelines now cover more fully both the joint and separate roles of JCARD, BIFAD and AID in planning, implementation, management, evaluation, and review of a CRSP, and clarify the accepted policy and procedures for BIFAD/JCARD/AID involvement, for university participation, and for AID implementation and review of CRSPs. As the CRSP is a joint BIFAD/JCARD/AID university effort, jointly planned and managed, with joint support by AID and participating universities, these CRSP Guidelines have been jointly developed with university input and have been jointly agreed upon by BIFAD and AID.

The CRSP concept derived from a mutual desire of AID and the universities to build upon the long experience and many benefits derived from the state-supported research efforts which are supplementally funded by the USDA through such mechanisms as the "Hatch Act." Such mutually funded programs have been justified by the complementarities of benefit to U.S. Government and individual state objectives in agricultural programs.

The "Hatch Act" model does not provide a completely applicable analogy to CRSPs, however, as both U.S. Government research funds and those from the several states are directed principally to domestic objectives -- albeit at different levels of governmental aggregation -- and both the USDA and the several state research institutions are mandated to serve domestic U.S. interests. In contrast, U.S. funds for foreign assistance are to aid the

people of developing countries, and AID is mandated to use its resources for this purpose. However, Title XII provides for a departure from this rule by mandating a dual goal for long term agricultural research to solve problems in the developing nations and at the same time to provide benefits to U.S. agriculture. For this purpose, the Title XII Sc. 297(b) provides that "programs under this title shall be carried out so as to - (2) take into account the value to United States agriculture of such programs, integrating to the extent practicable the programs and financing authorized under this title with those supported by other federal or state resources so as to maximize the contributions to development of agriculture in the United States and in developing nations." Since most non-federal funds made available to U.S. agricultural universities must be focused on solutions to domestic problems, this duality of purpose is a key part of the collaborative process.

Agricultural leaders concerned with both domestic and developing country needs for research-based science and technology in agriculture have come to recognize increasingly large areas of overlap of the subject matter, and the potential mutual advantage of joint research program efforts which cut across national boundaries and different level of agricultural development.

Most commercial crops and animals produced in the U.S. have origins in what are now the developing countries, and most of the world's food comes from resources which are common to both the more and the less-developed countries. Thus, there is much mutual interest in improvement of germ plasm and animal breeds. Furthermore, such production-limiting factors as plant and animal pests, climate, and soil constraints are often best studied under the conditions of maximum stress which frequently occur in developing countries. Most important, solutions of specific, major technical problems, often require critical masses of scientific talent and institutional resources not usually available in a single U.S. institution or to a single developing country, especially to the poorer, less-developed countries.

II. THE CRSP

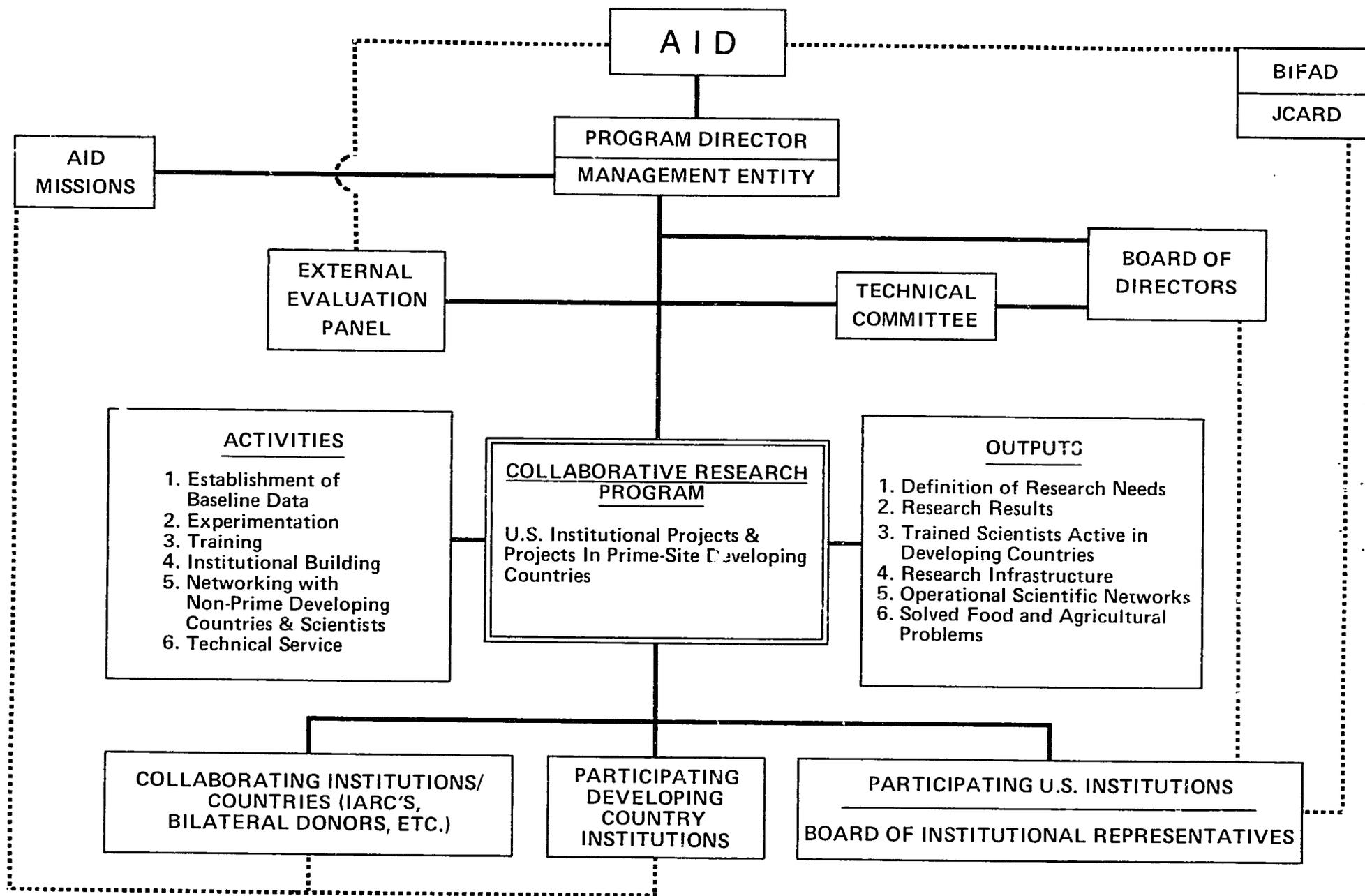
A. Concepts

"Collaborative Research Support" is the term used herein to define programs carried out under Section 297(a)(3) of Title XII. These are long-term research programs supported by AID for collaboration of participating^{4/} U.S. institutions with institutions in developing countries. CRSPs address specific problems of food production, distribution, storage, marketing, and consumption, and include such factors as policy/planning, basic plant genetic and other biological research as well as socioeconomic and cultural factors to determine such things as consumption patterns and preferences, and improve food processing, and nutrition. Formally-organized, individual components of a given CRSP may be designated as projects. An institution (called a planning entity) is selected to plan each CRSP, following which an institution (called a management entity) is selected to manage the CRSP.

The title "Collaborative Research Support Program (CRSP)" also denotes an arrangement which facilitates collaboration among U.S. universities, the USDC, the USDA, other federal agencies, international agricultural research centers, private agencies and industry, developing country universities and other research institutions. This arrangement, facilitated by BIFAD and by AID, brings together the resources necessary to successfully conduct a multi-disciplinary, multi-faceted, international research program. Collaboration is carried out on a problem-oriented basis in a common, integrated research and development program to solve a priority food, nutrition or rural development problem. This may require some fundamental research. A diagram showing possible relationships among the parties is illustrated in Figure 1. This is for illustrative purposes only and appropriate variations will be generated for each CRSP.

The amelioration of world food, nutrition and poverty problems will require considerable expansion in a comprehensive body of relevant scientific knowledge. Although expanding, the research capacity extant in the developing nations is insufficient to the task of providing such knowledge in an adequate time frame. Many of the countries, particularly in Africa, need much more assistance in research and institution building to solve their agricultural and fishery production problems. These have been further complicated by the world economic inflation and high cost of energy, other agricultural inputs, and food being imported by deficit countries.

^{4/} The term "participating institutions" is used to denote institutions contributing financially to the CRSP, as defined further in this document. The term "collaborating institutions" includes these plus all other U.S. and developing country institutions collaborating significantly in the total CRSP effort.



ORGANIZATION, ACTIVITIES AND OUTPUTS
OF A TYPICAL CRSP (COLLABORATIVE RESEARCH SUPPORT PROGRAM)

Successful solutions to food problems in developing countries as exemplified in much of Africa require a unified and collaborative effort in research and technical assistance among U.S. institutions, other bilateral donors, and international organizations. There exist in the developed nations research capabilities in science and technology that can make a difference in the developing countries if these resources are properly organized and made available to LDCs in a collaborative effort to address the constraints.

International Agricultural Research Centers (IARCs) were established to address specific problems in food production in developing countries. IARCs are supported by some forty donor members of the Consultative Group on International Agricultural Research (CGIAR), including the United States which contributes 25 percent of core budgets. The mandate of these centers requires that their research be the more adaptive type on selected commodities, plants, animals, and related areas suitable for application to developing countries. They provide research advisory assistance and training programs to developing countries. Most of the training is in research at center sites, and is short-term. IARCs generally do not support academic training of developing country personnel under their core budgets, but they do host the research of sponsored degree candidates.

Where CRSPs are involved in programs similar or related to the research programs at an international center or centers, efforts should be made to seek cooperative or collaborative arrangements in order to achieve complementarity in the comparative advantage of the parties and to avoid duplication and competition.

The CRSPs and IARCs have made headway in this respect, through memoranda of understanding, and in a few instances in joint programs for developing countries. However, there is still need and potential for more innovative models to link the centers, CRSPs, and other developed country institutions together in close collaboration with developing countries in a systematic manner to address priority constraints.

Since a limited number of CRSP's efforts can be funded in any time period, it is imperative that the constraints selected for research for a given CRSP be of high priority, be feasible, and represent a global or major regional community of interests among developing countries, IARCs, other donors, AID and U.S. institutions. The solutions to be sought should have the widest possible area of applicability and should have a strong probability of impact on developing countries.

The Title XII legislation as amended by Congress in 1979 requires that research be done in the developing countries themselves to the maximum extent possible. The plan for each CRSP must be developed to achieve the best balance between research in the United States and in the developing countries to suit their needs and to capitalize on the comparative advantage of the U.S. institutions in a manner to most effectively achieve the CRSP dual objectives.

Each CRSP will have a life-span of its own dictated by the nature of the problem, the progress made in the early years, the job left to be done and competing priorities. In general, CRSPs will be long term. The intent is not only to find solutions to constraints through research, but to also simultaneously develop greater research institutional capability in the developing countries where CRSP activities are located. Hopefully, the institutional relationships established between CRSPs and host countries will be enduring and will transcend the life of the CRSP. While not structured specifically as a training program, the research program in each CRSP addresses institutional development requirements and accommodates training needs through graduate degree programs, research assistantships and workshops for candidates of prime countries in which the CRSP is operating. This is in keeping with the American universities' tradition of using graduate students heavily in the main thrust of research programs. Such programs are encompassed in CRSPs currently underway.

The CRSP concept has some characteristics similar to the purpose of contract "ribbon" projects being promoted in AID. Both involve common themes that cross countries and regions and both provide for inputs from multiple sources. A distinction is that a CRSP may be supported jointly by federal and non-federal (state) funds and it has the dual objective of benefitting agriculture in developing countries and in the United States.

The validity of the CRSP effort is given impetus by AID Policy Directive 4 dated October 5, 1982 in which the Administrator states, "It is my intention that the Agency take immediate and continuing steps to: . . . mobilize the best and most appropriate Title XII resources for each project need, rapidly and effectively, either alone or together with non-Title XII resources, using all mechanisms at our disposal."

Development of and participation in CRSPs by universities and federal agencies are guided by the following concepts:

(1) Programs under Title XII should, wherever practical, build on existing programs and institutions including those of the universities and the United States Department of Agriculture and the United States Department of Commerce.^{5/} It should be noted that the, "build on existing programs" does not mean build up -- but the utilization of what already exists as a base.

(2) In such fields as education, health or agriculture, the facilities and resources of other federal agencies shall be utilized when such facilities are particularly or uniquely suitable for technical assistance, are not competitive with private enterprise, and can be made available without interfering unduly with domestic programs.^{6/}

^{5/} Foreign Assistance Act, Section 297(b)(3)

^{6/} Foreign Assistance Act, Section 621(a)

(3) A federal agency's appropriations may not be augmented with AID funds unless the project to be undertaken by the federal agency on behalf of AID is one not regularly budgeted by such agency.

(4) A federal agency may participate in a CRSP as an institution and receive federal funds from a participating university (management entity) through a subgrant or contract, so long as the primary university character of the research program is not changed, and so long as the participation is also subject to the enabling legislation of the particular federal agency. However, if a participating federal agency's activities are covered by specific appropriations under its own legislation, it must be determined administratively that the expenditures from the AID grant for such purposes are required for effective implementation of the grant.

B. Program Approach

The CRSP approach links U.S. and LDC institutions having common interests in organized programs of research on selected problems. A collaborative research program on a single problem of common interest to the U.S. and several of the developing nations might involve a single U.S. institution as the U.S. leader, an international center and several developing nation agricultural universities or research centers. More commonly, two or more U.S. universities, and as appropriate, other U.S. institutions with exceptional competence and interest in the problem might work as a team with the collaborating institutions of developing countries. The concept is to organize research on a program basis with adequate number of scientific disciplines to solve the constraints. This is distinguished from the project, piece-meal approach to research, traditional in much technical assistance.

The extent of available funding influences the size of each program, and consequently, the number of institutions which can participate. The number of U.S. institutions to be involved should be the minimum required to access the major pools of disciplines and talent necessary to accomplish the objectives of the CRSP and facilitate efficiency in management. Some institutions might become involved on short-term assignments through subcontracts with the management entity or a principal participating institution.

Each CRSP must have a global plan with objectives and stated strategies for achieving these objectives. In selecting country sites, a criteria established originally by the former Joint Research Committee is emphasized herein: (1) that the commodity, fishery or other resource, or factor to be researched is important to the economy of the country; (2) that there exists in the country a basic research institutional capability for viable research; (3) that the government is interested and committed to supporting research; and (4) that AID Regional Bureau and appropriate USAID Mission agree to the research program at the specific site. Another criteria is that for cost-effectiveness and for achieving the global effect, resources be concentrated in a minimum number of countries necessary in a major ecological zone or geological region to achieve the objectives.

A model that has emerged, is found to be cost effective, efficient for management, and productive in both research and institutional development is to focus and concentrate resources in one or more prime country sites representative of a major ecological zone or geographic region for the major research program in that area. This model is being used effectively in some CRSPs. The model utilizes a multidisciplinary team of U.S. scientists stationed on long-term assignments in each prime country. Less intensive research activities are conducted in a few other "linkage countries" through temporary duty of U.S. scientist who depend on proxy research by the host country scientists. This forms a scientific network between the prime country and linkage countries in each major ecological zone or geographic region. Such a network facilitates extension of research results. Other models are being tested in some CRSPs.

In all CRSPs, a formal memorandum of understanding (MOU) must be negotiated for CRSP involvement in each country site. The MOU specifies the conditions, responsibilities, and resource commitments of the collaborating parties. Any changes in the program should receive ratification by institutional administrative representatives, both in the U.S. and overseas.

The ME should involve the USAID Mission in the development of the CRSP program and the MOU. The Mission should be given a copy of the final MOU and have the opportunity to be a co-signator if it so desires. Involvement of the Mission will assure that the CRSP is not in conflict with any of the Mission's projects and, where possible, will complement USAID activities. Also, dialogue with Mission personnel, including the Mission director, will permit coordination of use of limited host country personnel and other resources, and offer other potential benefits to the CRSP's purpose. The ME should also coordinate with other bilateral agencies and international organizations involved in related programs in the country.

III. CRSP STRUCTURE

A. Planning Entity

Each CRSP will normally have come into existence through a planned program developed by a planning entity, whose attributes and responsibilities, along with the planning process are explained elsewhere in these Guidelines.

B. Management Entity

For each CRSP, an administrative "Management Entity" (ME), which must be an institution with the legal status of a juridical body, will be required for administering the grant from AID and for managing the total research program. This ME might be a U.S. university, an administrative unit within a university, a consortium or other structures of universities, legally organized as a juridical body, representing the participating institutions. An institution eligible to receive a federal grant would be eligible to serve as a management entity. There is no authority for a federal agency to serve as a management entity of a CRSP. However, as mentioned, a federal agency can participate in a CRSP under the same conditions as an eligible Title XII institution and receive AID funds directly from AID or through a U.S. university.

The ME receives and administers AID grant funds for the CRSP and enters into subgrant agreements with participating U.S. and developing country institutions for their respective projects, according to the global program plan developed for the CRSP. The ME is responsible for implementation of the program and for coordinating and leading the development of annual budgets and work plans. It is responsible for the program and accountable to AID for all expenditures. The ME establishes a system to facilitate and manage travel. It reports on the program and represents the CRSP in dealings with AID/W, and internationally. The ME, through its subagreements with participating institutions, holds them responsible for programs and accountable for use of funds. A system for effective management of the program and control and accounting of funds, including matching resources contributed by participating institutions must be developed between the ME and participating institutions.

AID's review and evaluation procedures are designed to assure that the performance of the management entity is appropriate for achievement of objectives in accordance with the overall plan and budget contained in the grant document. The BIFAD/JCARD, utilizing the BIFAD Staff, assist and advises AID and participating institutions in operating a successful CRSP. This is done through participation in reviews, evaluations, workshops, CRSP meetings and other activities.

C. Organization of Participating Institutions

The ME for each CRSP, in concert with participating institutions, creates a system of governance which may vary as to details from CRSP to CRSP and within a CRSP over time. Each body shall establish a charter and set of by-laws for its specific duties and responsibilities. Although there are

different structures among the CRSPs, the system which has evolved and which has been found acceptable may include the following entities:

1. Board of Directors. The Board consists of representatives from some or all of the participating institutions and may include individuals from other organizations. The AID program manager serves as an ex-officio member of the Board. The program director of the ME serves as an ex-officio member of the Board. The institution which serves as the ME will have a permanent member on the Board. Board members are selected by their participating institutions on the basis of their responsibilities and their relevant expertise. They should not be chosen solely to represent their respective institutions, but to function in the objective interest of the CRSP. Host country agencies collaborating in the CRSP may also have representation on the Board. The Board operates under a defined charter to deal with policy issues, to review and pass on plans and proposed budgets, to assess progress, and to advise the ME on these and other matters. While the ME institution has the authority to make the final decisions relative to program assignments, budget allocations and authorizations, the ME must, in the collaborative spirit, carefully consider the advice and guidance of the Board and other CRSP advisory groups. Any departure from the Board's recommendations should be justified, recorded in minutes of meetings, and reported in writing by the ME.

2. Administrative Council (Institutional Representatives). A CRSP may choose to have an Administrative Council, although this is optional. The Administrative Council is composed of a representative designated by each of the participating U.S. institutions. The Program Director of the CRSP and the AID program manager serve as ex-officio members of the Council. The institution which serves as the ME will have a permanent member on the Council. As the title implies, the members of this group represent the interests of their respective institution. Consequently, they are selected from the higher administrative management level of the institution. This group may involve some overlap with the Board of Directors. However, the line of authority must be clearly delineated, if the two bodies are chosen. In general, this group would not be concerned with those management, policy, and funding questions with which the Board deals. It would be concerned with major policy issues affecting their institutions, such as a proposal to drop an institution from the CRSP. It would also be concerned with commitments that impinge on the resources of their institutions, such as the matching question. It is important conceptually that the Council's functions be defined to constitute a fundamental group representing the institutions involved.

3. Technical Committee. A Technical Committee (TC) is established with membership drawn primarily from the principal scientists actively engaged in the work of the CRSP, known as Principal Investigators (PIs). The CRSP program director and the AID program manager serve as ex-officio member of the Committee. The Committee membership will include host country scientists working on the CRSP. The TC meets from time to time to develop work plans and budgets, to review the technical progress of the total research program, or components thereof, and to propose modifications in

the technical approach, and to recommend allocations of funds. The TC reports its findings in writing to the ME which will normally share them with Board of Directors, and/or the Administrative Council for further consideration.

4. External Evaluation Panel. An External Evaluation Panel (EEP) will be created for each CRSP. The responsibility of this panel will be to evaluate the status, funding, progress, plans and prospects of the research program of the CRSP and to make recommendations thereon. The panel shall consist of an adequate number of scientists to represent the major disciplines of the CRSP, normally approximately five members. The term of office needs to be long term. A five-year period is recommended for the initial panel. After the initial five year period, original members may be rotated off on a staggered basis. Provisions should be made for replacements for lack of attendance, for resignations or for other reasons. In instances where minor discipline not represented on the EEP, may be needed for a specific evaluation, the Chairman may request the assistance of an external consultant from the ME.

Panel members will be senior scientists recognized by their peers and selected for their in-depth knowledge of a research discipline of the CRSP and experience in research and/or research administration. International research experience of some members is essential. The members are selected so that collectively they will cover the substance of the CRSP, including socio-economic factors that can influence research and adoption of technology generated from research. Panel members should be drawn from the United States (some with experience in agricultural research systems of the land grant universities) and the international community, and should include at least one scientist from a developing country. While emphasis in qualifications is on scientific recognition, a practicing scientist might be preferable to a high level administrator who might lack adequate time for the in-depth involvement required. Availability to devote considerable time to these activities is an important criteria.

Candidates for membership on the EEP are nominated by the ME, in consultation with the Board and AID program manager from information obtained from the TC, from professional societies and other sources. After an EEP is established, the EEP will be consulted on replacements. The ME submits nominations through the AID program manager to JCARD/BIFAD for concurrence, which make their recommendations to AID for final acceptance. The appointments are made by the ME.

Evaluations should be scheduled over a five-year period with an annual evaluation at varying depths and a report annually. An in depth evaluation should be made once every three years, with visits to overseas sites. This should coincide with AID's Triennial Review. The EEP will submit its report to the ME and Board with copies to BIFAD/JCARD through AID's program director for use in the Triennial Reviews. Questions for consideration by the EEP may be proposed by the ME, the Board, TC, AID and BIFAD/JCARD in writing. BIFAD/JCARD proposals will be channeled through the AID program director. This should be done before the Triennial Review, but may also be done during the Review. The ME prepares a scope of work for the EEP with input from AID and JCARD/BIFAD.

The EEP must play a strong role in judging the balance of a CRSP and relevance of each project to the program goals. It should evaluate the performance and the productivity of each institution on each project annually, and assess the appropriateness of projected resource allocations.

The objective views and expertise of this external group is necessary to balance the sometimes conflicting but natural institutional biases that may exist in a CRSP. It is important that the ME make full use of the EEP and its recommendations. Panel members should be invited to attend important meetings of the PIs and CRSP organizations in order to keep abreast of progress and be familiar with problems and issues. Evaluations should include periodic site visits, made on a rotational basis to each university and each participating country, particularly to prime country sites. These visits can be divided up amongst the members, permitting at least two members to work together on each site visit. There also should be adequate opportunities for interaction of the TC and Board with the EEP.

The EEP recommendations may serve as the basis for bringing about salutary changes in CRSPs through adjustments in projects and other changes. In the extreme, it may be necessary to change institutions. The EEP's recommendations could serve as the basis for such changes where necessary. A decision to take such action without the EEP's recommendation would not constitute appropriate use of the EEP. However, more often it would be expected that the EEP would find solutions to problems through changes in projects and components of projects. The Board or ME might disagree with an EEP's recommendation. In such cases, the rationale for such disagreement should be stated in minutes, and a report made by the ME to AID, justifying the disagreement. Copies of such reports would be made available to JCARD/BIFAD for their role in the Triennial Review.

IV. PLANNING A CRSP

A. Priority Establishment

JCARD/BIFAD and AID are jointly responsible for preparing and keeping current a prioritized list of research needs in agriculture in developing countries. This list should be reviewed annually and updated. The priorities would reflect needs in developing countries as determined through surveys and/or contacts with IARCs, USAID Missions, Regional Bureaus, and other international agencies. JCARD will recommend those topics suitable for CRSPs, and those suitable for other research models. Where there is a need for more information to determine the suitability of the CRSP mode, JCARD will recommend to BIFAD and AID that exploratory studies be conducted. For those topics determined to be suitable for the CRSP Mode, JCARD will recommend to BIFAD and AID that a CRSP planning activity be initiated. Where an exploratory study is needed, the following process will be used.

B. Exploratory Studies

An exploratory study is indicated where reasonable doubt exists about the feasibility of a CRSP, or where additional information is needed to determine such things as sufficient U.S. university interest to commit matching requirements. Also, before proceeding to a formal planning process, the commonality of research needs over a large area of the world must be determined along with possible approaches to doing the research.

In those cases, where JCARD and BIFAD recommend an exploratory study, AID will make the decision to fund or not to fund the exploratory study. This decision will always be subject to the availability of funds as weighed against other priorities.

The exploratory study may be done in a variety of ways, such as special studies or state of art reviews, professional conferences or workshops, small feasibility studies, and a canvass by JCARD/BIFAD of host country and U.S. university attitudes. An exploratory study should be relatively short-term and of modest size (e.g., 3-4 months' duration and costing no more than approximately \$50,000). The JCARD will recommend through BIFAD to AID the appropriate way to proceed with each exploratory study and the Title XII and/or other institutions best qualified to conduct such a study.

If a study mode is chosen, the entity selected to do the exploratory study will make a state-of-the-art review, and a survey of developing country needs, coordinating with USAID Missions to determine or confirm the need and nature of the research required. It will then determine the appropriate method for doing the research, considering the CRSP and other modes. This will require a canvass of U.S. agricultural universities to determine their interest and willingness to commit matching resources, a measure of the potential duality of research goals (potential for contributing to developing country and U.S. agriculture). The entity will submit its report to AID which will request JCARD/BIFAD review. JCARD will review the report and make its recommendation to AID through BIFAD. JCARD's recommendation will advise AID

on whether or not to proceed with the planning of a CRSP, to conduct additional studies, to use other methods for implementing research, or to forego any action.

If JCARD/BIFAD recommend that the subject is suitable for research using the CRSP mode, the next step will be to proceed with the planning process as described in the next section.

In cases where JCARD/BIFAD recommend the initiation of a CRSP without an exploratory study, planning activities would be initiated also as outlined in the following section.

C. The Planning Process

1. Initiating a Planning Activity

(The steps outlined below for selecting a planning entity would also apply to the selection of an entity for an exploratory study, indicated in above section.)

After AID makes the decision to fund a planning activity, JCARD and BIFAD assist and advise in the selection of a planning entity and in monitoring and advising in the planning process. The first action is to select a planning entity (PE).

The planning entity might be a single institution, a consortium of universities, an organization such as the Sea Grant Association, a federal agency, a foundation, or private firm with appropriate competencies. The mode of funding, contract or grant, of the planning activity would be determined by the type of relationship desired by AID with the planning entity. In case of a federal agency, AID would fund the other agency through a PASA/RASA^{7/} Agreement with that agency, and exercise the controls required by such service agreements.

If a contract is the appropriate instrument to reflect the relationship desired with the PE, that entity will be selected and the contract executed in accordance with the requirements of federal law and regulations governing procurement of services by Government agencies.

If a grant or cooperative agreement is the appropriate instrument, the essential steps used by JCARD/BIFAD and AID in selecting the planning entity may vary, but in general the various phases would include the following steps:

(1) A scope of work for planning the CRSP and the criteria for selection of an institution to do the planning will be developed jointly by AID and the BIFAD Staff with review and concurrence by JCARD.

^{7/} Participating Agency Service Agreement/Resources Support Service Agreement.

(2) While AID may publish in the Commerce Business Daily a notice of intention to select an institution for planning for a research support grant program, such publication is not necessary for grants. Other media for publicizing the notice to universities may be used. The notice should list the selection criteria and describe the scope of work for the planning activities; the notice should also invite institutions interested in participating in the CRSP and/or in doing the planning to attend a meeting for further instructions on Title XII on the CRSP concepts, on objectives of the program being considered, and the planning required.

(3) AID, with participation of JCARD and BIFAD Staff, will convene the meeting of interested parties. The institutions will be requested to attend with an expression of interests and statement of capability. These statements will be reviewed through a peer process at the meeting, and a list of candidates for the planning entity and a list of those interested in participating in the CRSP will be developed at the meeting. The institutions interested in serving as a planning entity will be ranked in order of preference by institutions attending the meeting, in a peer process, and the top 3 recommended. Those institutions interested in participating in the CRSP will be listed with statements of their capability. AID will request JCARD's evaluation of institutions on the list and those recommended to serve as the planning entity.

(4) JCARD will review, and evaluate the candidate institutions to serve as the planning entity against the criteria distributed and other pertinent information, utilizing whatever resources appropriate. The JCARD will recommend the two to three institutions, ranked ordered, as its choice for the planning entity, stating the rationale for its recommendation. JCARD will review the list of institutions interested in participating in the CRSP, and will make its recommendations on their capabilities. The two lists will be submitted to BIFAD.

(5) BIFAD will review the JCARD recommendation on the planning entity and make a recommendation to AID for its decision on the selection and issuance of a planning grant. BIFAD will also submit the list of institutions with statements of capabilities to AID for future use. The guiding principle in AID's selection of the planning entity is that, while retaining fully the responsibility for decision making, it would be guided by the JCARD/BIFAD recommendations.

AID, in consultation with the BIFAD and the JCARD, will develop the scope of work and manage the planning contract or grant in such a way as to: (1) maximize the opportunity for all interested institutions to be fully considered in participation and to have a voice in the planning through a peer group; (2) assure objective evaluation of the qualifications of these institutions to carry out activities required by the CRSP, including the commitment of their own resources to the CRSP; (3) provide for optimum contributions by the potentially-participating U.S. institutions (as well as potentially-collaborating developing country institutions) to the planning process; (4) avoid organizational conflicts of interest; and (5) assure compliance with affirmative action guidelines as required by Federal Regulations.

Steps will be taken to assure that all eligible universities, including the smaller and less-experienced ones, and federal government agencies, having scientific capacity in the problem area and interest in contributing their own resources to the program, will be notified of and have an opportunity to participate in this early phase of the planning process.

Normally, the planning entity will have the option of later serving as a participation institution in the research program, if it meets Title XII criteria and is qualified. In case of such interest, it will be necessary to provide adequate safeguards against "organizational conflicts of interest."^{8/} There may be exceptions where the planning entity may be excluded from participation in the CRSP by a prior decision made by AID on JCARD/BIFAD's recommendations. The planning grant or contract should specify whether the planning entity is to be excluded or permitted to participate in the CRSP.

In developing a global plan for a collaborative research plan program the PE will:

- dialogue with JCARD/BIFAD/AID;
- dialogue with AID/W, including the Bureau for Science and Technology and Regional Bureaus, and with USAID Missions, to identify or confirm interested and suitable countries for potential sites;
- identify and appoint, subject to prior concurrence of JCARD/BIFAD and approval of AID, peer panel members from U.S. and international institutions interested in participating in the CRSP to assist and advise the PE;
- identify or confirm researchable constraints globally or regionally;
- select potential prime country site or sites in major ecological zones or geographic regions;

^{8/} Organizational conflicts of interest typically arise in the context of multi-phase programs in which the preliminary phase is designed to develop a work plan, specifications, a set of required capabilities or a design for the activities to be carried out in future phases of the project. An organization selected to do the planning phase of a CRSP may be subject to competing and potentially conflicting interests; (1) the contractor's obligation to perform its contract to the best of its ability and in the government's best interest; and (2) the desire to be in the best possible position to participate in follow-on activities. Moreover, "inside information" obtained in the earliest phases of the project may give it an unfair advantage over other organizations seeking to provide services for later phases of the program.

- identify interested research institutions in prime countries and determine their capabilities for participation in CRSPs;
- confirm and identify extent of interest of U.S. universities in participating in the CRSP, in contributing matching resources, and in committing scientific staff to operational assignments, both domestically and overseas;
- field a team from the peer group and/or members from interested universities to visit potential prime sites and discuss the potential program;
- identify linkages and minimum roles for non-prime country sites in major ecological zones or geographic regions to form a scientific network with the prime country, or countries in each such zone or region; and
- develop a global plan, regional strategies, and tentative collaborative program for U.S. participating institutions for each prime country, and their roles in selected non-prime country sites in each major ecological zone or region.

In carrying out the above steps, attention will be given to a number of factors in arriving at a CRSP plan, which are outlined in the next section.

2. The CRSP Plan and A Grant Proposal

In the initial stages of planning, the constraints and characteristics of problems to be researched in the developing countries should be identified, and the interests, resources, and research capabilities of developing country governments and their research institutions determined. The PE will utilize the peer panel in all stages of the planning process to assure representation of university interest and to utilize its expertise and experience. AID regional bureaus and USAID Missions would be expected to participate actively in guiding the planning entity.

From these contacts and determinations, the planning entity should develop a tentative, general, technical characterization of a CRSP, responsive to the needs and interests of the developing countries, which JCARD would review.

Subsequent stages of the planning process would involve confirming interests, resources and specific scientific functions to be undertaken by participating U.S. institutions. The peer panel will be useful in this respect. From repeated examination of developing country and U.S. institutions' concepts and interests, the planning entity will develop a more detailed proposal (or set of alternative proposals) on the appropriate technical design and components of a global plan for a CRSP.

In developing the component of research relevant in the United States, programs in the general subject matter area being conducted by U.S. universities and other institutions could be considered where appropriate linkages could be established. The amount of such research and the nature of its relationship to the CRSP should be described in the contributing institution's proposal. The program already underway at the institution might contribute indirectly to benefit the CRSP. If not federally funded, it might, with appropriate adjustment or augmentation, contribute to the matching requirement.

The planning entity will develop a proposal which will include the following elements:

- the planned collaborative research program, budgeted annually for a five-year period, with stated objectives and identification of the required technical components and their interrelationships.
- identification of the U.S. institutions best suited, by virtue of technical capability, experience, interest and commitment of their own financial resources, as determined by the peer advisory group, to undertake research on the various technical components;
- a plan of work and budget for each participating institution, showing its matching commitment;
- identification of prime developing country site or sites representing major ecological zones or geographic regions where interest has been expressed and where the necessary basic research capabilities exists collaboration in the program;
- a plan of work and budget for each prime country site, showing proposed resource commitments by the United States and by the host governments;
- identification of developing countries to serve as linkage or scientific network countries, with each prime country site(s) in each ecological zone or region, and a description of the program and budget for each linkage country;
- on the advise of the institutions which have been tentatively selected to participate in the CRSP, identification in a peer process of interested candidate institutions to serve as the management entity, recommending 2 to 3 in rank order as the choice of the potential participating institutions as the best suited; and

- assurances that full consideration was given to significant involvement of minority institutions and women in the program. Special emphasis is being given by AID and BIFAD to increase involvement of these two groups in development assistance programs. The JCARD, in the exercise of its responsibilities, is to be cognizant of affirmative action guidelines required by law and regulation.

The planning entity will submit its proposed plan with recommended list of institutions and candidates for the management entity to AID for JCARD/BIFAD review.

JCARD will review the plan and recommendations and will make its recommendation to BIFAD and AID. The JCARD's recommendations will reflect its judgement on the adequacy of the plan to fulfill objectives and on the capabilities and optimum number of universities to conduct the program. JCARD's recommendations on the institutions will give substantial weight to the evaluation of institutional capabilities by potential participating institutions in the peer process used by the PE. Also, JCARD shall give careful consideration to the preference of participating institutions for the institution to serve as the management entity.

In considering institutions to participate in a CRSP or serve as the ME, members of the JCARD or BIFAD will disqualify themselves from participation in decisions on recommendations that directly affect the financial interests of their institutions.

JCARD will submit its recommendations to BIFAD to review and submission to AID. In developing its decision, AID will consider all aspects and implications of the BIFAD recommendation, including technical and legal considerations and consistency with overall policy, procedures and governing Federal Regulations and Executive Directives.

Following its decision to proceed with a CRSP, AID will select the management entity and instruct it to take the CRSP Plan and develop it into a program proposal for a grant following the format specified in grant regulations. AID may agree to a "start-up" grant for funding for this activity. Upon approval of the proposal, which will be reviewed by JCARD/BIFAD, and submitted to AID with recommendations, AID may either modify the start-up grant to a full grant, or write an entirely new CRSP grant.

The proposal should incorporate the plan that was developed by the Planning Entity for a five-year program with annual work plans, budgets, and supporting documentation. The institutions to participate and country sites would be those recommended by JCARD/BIFAD in the final selection process. However, if it should become necessary to drop any institution or site for budgetary or other reasons, the adjusted program should be reviewed by JCARD/BIFAD. The program proposal should show linkages or cooperative arrangements with international research centers.

When the problems and priorities identified apply predominantly or wholly to a single geographic region, and the mode considered most appropriate for the research is the CRSP, a regional CRSP would be in order. The method of planning and implementing such a CRSP could follow these Guidelines. However, the management, method of backstopping, and funding would have to be decided between the specific Regional Bureau and the Bureau for Science and Technology in AID-Washington.

Formal MOUs between the ME and host governments are not possible until the grant is approved for authorized expenditures. It is not until this point that any firm commitments can be made to a country government. As there is often a considerable lapse of time between planning and grant authorization, it may be necessary for the ME to confirm interests and reassess conditions in recommended country sites.

V. IMPLEMENTATION OF CRSPs

A. Responsibilities and Roles

1. AID

a. AID/Washington

Normally, the Bureau for Science and Technology, a central bureau in AID-Washington, bears the formal responsibility for generating the authorization, and for funding and managing a CRSP. The Management Entity will be responsible to AID for all management functions that would be undertaken by each of the participating institutions if they had their own grant. Under a grant agreement, AID defines those controls that it will exercise. An oversight function is exercised by an AID manager (S&T/AGR), who monitors and backstops the operations of the CRSP, reviews programs/projects and budgets, and approves all travel to locations outside of the USA. The Director of the Office of Agriculture serves as the intermediary in clarifying points of view and conditions.

The Central Bureau and the Regional Bureau will keep each other informed on a continuing basis regarding the progress being made on existing CRSPs, the applicability of CRSPs results to field problems, difficulties encountered by CRSPs and possible solutions to them. All Bureaus concerned will seek to encourage follow-on activities to capitalize on CRSPs results.

b. USAID/Country Missions

In AID Policy Determination 4 dated October 5, 1982, the Agency Administrator states "I expect the Missions to participate actively in the various CRSP efforts in preparing for effective host country involvement in such research and in facilitating field activities to maximize the objectives of the program."

USAID Missions should be engaged in continuing dialogue from the start regarding any CRSP activities anticipated within that country. Each AID CRSP project officer and each management entity will bear some responsibility to insure that this dialogue is productive. While Missions are not required to do so, it is often in their and the United States best interest to facilitate CRSPs where possible. This may extend to providing resources, financial and otherwise, and/or facilitating custom clearances, and logistics support where feasible. Coordination with Missions and establishment of relationships with USAID Mission-funded programs should be done in a manner to complement the overall goals of the CRSP and to aid the Mission in achieving U.S. development assistance goals outlined in the USAID Mission's Country Development Strategy Statement. More detailed discussion of Mission involvement will be found in Section V. D. 2.e.

2. Management Entity (ME)

The ME will be the grantee and as such will bear responsibility for the grant agreement. AID will define the responsibilities of the ME for implementing the CRSP in accordance with Federal Regulations governing grants. Principal responsibilities, normally defined for the ME are summarized herewith:

(a) Complete or develop a global plan with regional strategies at the outset of the implementation phase.

(b) Work with AID/Washington, S&T Bureau, Regional Bureaus, and USAID Missions, and with representatives of participating U.S. institutions in confirming tentative site selections and developing MOUs and specific programs with annual work plans and budgets in each prime country or countries in each ecological zone or geographic region where located.

(c) Work with U.S. institutions in developing component projects in each prime site to form an integrated, multi-disciplinary program representing major constraints, including socio-economic, of the ecological zone or region for which the country was selected; the country program should include institution building and training components for the prime countries primarily.

(d) Assure that baseline data is made available, either through socioeconomic studies and policy assessments or by updating of existing studies and assessments in each prime country site for measuring future progress.

(e) Confirm arrangements with those countries which are to serve as scientific linkages with the prime country or countries in each ecological zone or region.

(f) Work with participating U.S. institutions to develop the research programs in the United States that are a part of the overall program in the respective ecological zones or regions.

(g) Allocate resources for research among disciplines and the participating institutions, maintaining balance between U.S. and overseas research activities, in a manner most appropriate for cost-effective achievement of goals.

(h) Develop a reporting and publication system that will assure appropriate publicizing and use of research findings of the CRSP overseas and in the United States, aimed at the different institutional audiences and different national and ethnic groups that the CRSP deals with.

(i) Establish an effective working relationship with AID Washington offices, U.S. institutions, international centers and agencies, as well as with host country institutions.

(j) Coordinate and provide creative leadership and direction to planning and implementation of the CRSP, especially its overseas components.

(k) Represent the CRSP in specific official contacts within the United States and abroad, dealing with AID, BIFAD, and JCARD.

(l) Administer in both fiscal and programmatic terms the research program under the programmatic guidance of the Board of Directors and the administrative authorization of the ME institution.

(m) Take measures to have the CRSP structure established as outlined in preceding sections, assuring that functions are described, the charter is established, and by-laws written, in accordance with provisions of the grant document.

(n) Organize the ME staff to serve as secretariat for these bodies, with minutes to be taken and recorded.

(o) Nominate members for the External Evaluation Panel on the advice of the Board, considering recommendations of the TC, participating institutions, and other sources, obtain clearances of nominations by the Board, JCARD/BIFAD and AID.

(p) Describe functions for a strong role for the EEP and the manner for its operation, with schedules to keep it informed and to facilitate its work, assuring a thorough evaluation and report annually, with institutional and country site visits on a rotational basis.

(q) In coordination with the participating U.S. institutions, prepare, manage, and evaluate annual budgets and work plans for research and training.

(r) Develop subgrant agreements with participating institutions, and subcontracts where necessary to supplement the technology from other sources where not available in CRSP member institutions.

(s) Establish a system for advanced planning and control of travel, utilizing the control systems available to participating institutions, and requesting approval from AID Washington for clearance of all international travel.

(t) Arrange for meetings among personnel of CRSP institutions and host countries as necessary with due consideration of cost factors.

(u) Establish a system of communication with participating U.S. institutions. to involve deans, department heads, directors of resident instructions and international programs, and directors of experiment stations in the CRSP and inform them about the program, its progress and problems. This is to integrate the CRSP with related research and educational activities of the institution.

(v) Prepare and submit annual and other reports to AID/Washington in a timely manner as required in the grant document.

3. Participating U.S. Institutions

U.S. institutions, including Federal agencies participating in the CRSP may be funded, according to agreed plans, directly by the management entity through subgrants. Participating federal agencies shall be assumed to participate on a shared cost basis comparable to non-federal institutions, except that their contributions may be from federal funds. In order to be considered as a shared cost contribution by a participating federal agency, all such funds must be used to support the CRSP, as recommended by BIFAD and approved by AID. U.S. universities participating in CRSPs must show in their budgets a minimum 25 percent cost share (of AID's Federal funds).

Participating U.S. institutions shall:

- (a) Assist the ME in finalizing the original global program plan and specific prime country sites program, as well as establishing zonal country linkages; and assist in updating these plans and developing annual work plans and budgets;
- (b) Help establish lines of communications within the institution to keep all interested parties informed, and to assist in developing a cooperative relationship with the ME;
- (c) Carryout CRSP activities as stipulated in the subgrant agreement;
- (d) Provide workplans, budgets, reports and other inputs on a timely basis as required by the CRSP;
- (e) Budget AID Federal funds, and show a minimum 25 percent contribution in non-Federal resources (in kind or in cash), excluding those Federal funds in the exempt category as defined elsewhere (Section V. D. 2.c.);
- (f) Expend funds and manage personnel in keeping with the standard policies of the participating institutions except that if such policies conflict with the subgrant agreement, the latter shall prevail;
- (g) Respond to audit requirements which will be conducted by conventional cognizant U.S. Government audit agencies upon request of the ME (the ME does not conduct audits required by the government);
- (h) Provide a long-term institutional commitment to the CRSP and designate an institutional representative who shall be an essential link in the communication chain relative to approvals of plans and budgets and changes in same. The institutional representative will be charged with monitoring the overall institution's posture relative to the CRSP, keeping interested parties informed on the CRSP, and participating in decisions to increase or decrease, add or delete institutional components over time in keeping with decisions of the ME, which will normally be based on recommendations of the EEP;

(i) As a priority order of business, in cooperation with the ME establish research project(s), maintain a long-term institutional commitment in prime country sites as the institutions contribution to a multi-disciplinary, integrated team effort, and maintain a long term institutional commitment for supporting such research;

(j) Maintain an appropriate balance between research overseas and research in the United States;^{9/}

(k) Cooperate with the ME on efforts to establish forward travel plans and a control system on travel by encouraging such a system in the institution;

(l) Cooperate with the ME in establishing as appropriate and feasible scientific network linkage country sites;

(m) Assist the ME in developing and implementing a degree training program for candidates from the prime country site to help fill the needs of institutional development programs in prime country sites, and in linkage country sites where relevant and suitable to priorities; and

(n) Participate in reporting and publication on progress and results.

4. Participating Developing Country Institutions

(a) The MOU will define the program and specify commitments of the parties to the MOU, over a projected five-year period. It will also specify relationships of the host country institution to the CRSP and define the involvement and appropriate relationships with the various institutions within the host government. The MOU will state requirements for annual work plans and budgets, which will be in separate documents. The MOU will specify the organization or institution of the host government with which the CRSP will work, but the details, such as work sites, the training program, travel, and other activities, will be described in the annual and five-year work plan.

(b) It is important that government commitments in terms of logistic support, facilities, and personnel, be described in the MOU, including housing, office space, transport, custom clearance procedures, and import privileges. The country's research goals should be stated.

^{9/} The Title XII legislation mandates that most of the research will be done overseas where possible; AID has tended to accept a 50-50 or 60-40 ratio overseas - Percentage of U.S. expenditures for research in the United States versus research expenditures overseas. Cost of training host country researchers in the United States would be classified as an overseas expenditure.

(c) Developing country institutions must be prepared to undergo field audits arranged by AID relative to the management of funds and other resources provided under a CRSP on a pass through basis.

5. BIFAD-JCARD

JCARD shall be the principal BIFAD subsidiary unit which will carry out BIFAD responsibilities relative to CRSP efforts. The BIFAD Staff supports, represents, and works for these bodies. JCARD will rely heavily upon its CRSP Panel (a standing panel established by JCARD to serve as a subcommittee to monitor CRSPs for JCARD and to report to it) and the BIFAD Staff to develop in-depth understandings, prepare position papers, monitor active CRSPs, participate in planning CRSPs, in reviews and in evaluations, and provide for interactions among CRSPs, and with AID and other agencies on an on-going basis. Normally, the JCARD CRSP Panel will be chaired by a JCARD member, will include other JCARD members, and may include other representation from the university community, AID/S&T, AID/Contracts and Regional Bureaus.

Matters of policy, budget, program implementation and other issues of substance will be the subject of formal recommendations from JCARD to BIFAD, and likewise, in turn, from BIFAD to AID.

JCARD through the CRSP Panel and the BIFAD Staff will monitor the operation of each CRSP including periodic participation in important domestic and overseas meetings and through regular participation in major reviews and evaluations.

In official reviews, such as Triennial Reviews of CRSPs for extending authorizations and grants and on such matters as meetings of the Joint JCARD-Agricultural Sector Council, the JCARD CRSP Panel will carry out the initial review for JCARD, and will report its recommendation to JCARD/BIFAD which will report formally to AID.

JCARD will endeavor to insure that the best input possible is available to CRSP efforts from the university community. If misunderstandings or difficulties occur in the CRSPs relative to the university interactions, JCARD will use its best offices to establish the basis for an effective resolution. Agency encouragement for such action is contained in AID Policy Directive 4 dated October 5, 1982.

JCARD and the BIFAD Staff will participate with and advise the Agency on relationships between the International Agricultural Research Centers and CRSPs.

B. Organizing U.S. and Developing Country Components of Collaborative Programs

1. Grant Agreement

The grant agreement will be between AID and the ME. This document is the official legal basis for the operation of a CRSP and it may not be contravened in any manner by any of the parties short of an official grant

agreement modification acceptable to the signators. Grant agreements do embrace standard U.S. Government provisions. Title XII legislation has been very useful in developing the proper grant agreements for CRSPs. The CRSPs have provided new experience in involving U.S. universities with AID in research programs, which have resulted in improvement of the process.

The Management Entity has the prime grantee responsibility for assuring institutional compliance with the Grant Agreement. The ME should look to and utilize the AID Program Manager for assisting in obtaining clarifications of and necessary waivers to conditions with appropriate documentation to the Contract Office.

2. Subgrant Agreements with Participating U.S. Institutions

Subgrant agreements will be negotiated by the ME with participating U.S. institutions to define, authorize and fund the work to be done under the CRSP. The subagreements shall incorporate, by reference or otherwise, the substance of the grant agreement. From time-to-time subagreements will be modified to incorporate updated work plans, budgets and conditions.

3. Organizational Structure of Participating U.S. Institutions

The manner in which participating U.S. institutions may be organized within a CRSP is described in Section III C of these guidelines.

4. Reconfirming or Selecting Prime Developing Country Sites and Institutions

In the model recommended, the following criteria are appropriate for selection of the prime country site(s) in each major ecological zone or geographic region where principal multi-disciplinary research is to be undertaken:

- the crop, livestock, fishery, or other resources to be investigated are major sources of food and income, or the other factor(s) to be researched relate importantly to agricultural or fishery production in the prime country;
- the prime country site is representative of the ecological zone, or geographic region of the commodity, fisheries, or other resources; the prime country site could serve as the activating nucleus of a scientific network for technology transfer and exchange, depending on the commodity or condition to be investigated; the zone or region may include a number of countries less advantageously equipped to support viable research programs;
- the country government is interested in participating in the CRSP and is willing to make adequate commitments to support the research and assist the neighboring network countries;

- there exist in the country the basic institutional research capacity needed to make collaborative research viable; this capacity would be found in the ministry, or other government agency responsible for research, and in the national research stations and research system for agriculture, fisheries, or other resources which the agency or ministry supervises; the institutional research capacity might also exist at an agricultural university where it has responsibility for research in areas related to the CRSP activities;
- government policies are supportive of research, extension and production;
- there is reasonable assurance of political and economic stability and ability to sustain a viable research program.

At least one prime country would be selected to represent a major ecological zone or geographic region, such as the Sahel. The strategy would be to concentrate adequate scientific and other resources in that country to assure a reasonable opportunity for positive impact from research (and training) on production and consumption of the food or food products related to the research. While a prime country site would be selected because of its institutional competence, institutional development would be expected to result from the CRSP. This should be expected to take place within a reasonable time frame. A prime country must play an important role with the CRSP in developing the scientific network with its neighboring countries in its ecological zone or region. A long-term relationship should be developed between the prime country and U.S. institutions as well as other collaborating institutions which could survive the life of the CRSP.

The ME has the principal responsibility for establishing prime country sites, developing the country research program and negotiating the MOU with the host governments and its institution. However, this can only be done in cooperation with representatives of the participating U.S. institutions.

5. Other Scientific Linkages - International Network

The primary CRSP linkages should be formed between prime country sites, where efforts are concentrated, and other countries within the major ecological zone or geographic region where some CRSP activity is developed, as described in the preceding sections. The prime sites should become the major hubs for institutional linkages with neighboring countries in each major ecological zone or region where the CRSP is functioning. The extent and feasibility of such linkages will depend on the available funds above the requirements for prime country sites, which will have priority.

AID "graduate countries"^{10/} are eligible to be prime country sites, or to serve as scientific linkage sites for Latin America as well as for other regions.. As an example, Mexico and Brazil, which are graduate countries, serve as a focal point for certain regional economic activities in Central and South America. Both countries are current prime sites for some CRSPs, and also serve as scientific linkage countries for others. The advantages they offer to CRSPs in cost-effectiveness, research institutional capabilities, and in serving as leaders in their zones are obvious. The CRSPs' goal for involvement with graduate countries must be to utilize their institutional research capability for benefitting a larger ecological zone or region, rather than in assisting these countries.

Since the IARCs have interests and goals that are common with many of the CRSPs, and since AID provides 25 percent of their core budgets, it is important and in the United States' interest that, where appropriate, the ME should develop cooperative and collaborative relations with IARCs. MOUs between CRSPs and IARCs should be utilized to formalize relationships and to promote understanding and coordination. In some situations where there is special funding, joint projects may be feasible. These will require preparation of a joint program proposal outlining the functions of each institution in the project and the amount of funding for each. The goal is to achieve complementarity and maximize the comparative advantages of each party.

There may be cases in which a CRSP may need to access resources in a developed country other than the United States. This need should be related to the AID source-origin regulations. This can be done on a scientific and cooperative basis for mutual purposes. CRSPs offer excellent opportunity for contributing to and stimulating such international cooperation in scientific research.

C. Program of Work

1. General

The initial five-year plan is adjusted and rolled forward in annual planning.

2. Annual Research Work Plan

Each participating institution prepares an annual research work plan and budget in a five-year, forward-rolling program plan. The call for such plans will come from the ME to the institution. The development of an institution's annual plan of work and budget will coincide with the development of annual work plans for each prime country site.

^{10/} An AID "graduate country" is one which AID previously assisted and has progressed sufficiently in development that AID has ceased to furnish bilateral assistance to the country.

3. Institution Building and Training

While the major thrust of CRSP is the generation of solutions to priority problems through research, a concomitant objective is the generation of a research capability in the countries where the CRSP is functioning so that they can increasingly carry out independent research and help less fortunate neighboring countries. The institutional building component is a natural part of the research activities under the CRSP's. Most of the training will be degree training, especially graduate training at participating U.S. institutions. Also, research assistants are trained locally in research operations.

U.S. graduate students may be employed on CRSP projects at U.S. or overseas sites as research assistants where the employment is necessary for fulfillment of CRSP goals. Their employment can follow conventional practices of U.S. universities under the Hatch Act system, and U.S. institutional guidelines on compensation should apply as long as the employment and the compensation are not in conflict with the AID grant agreement. A bonus in this system is that some U.S. students will be introduced to the international dimension of research and may in due course choose international work as a career.

Assignment of U.S. graduate students as research assistants overseas is subject to host country approval. Such assignments must be under the close supervision of a senior U.S. scientist, with some on-site direction, especially during the initial period of the assignment. Graduate student assignments could include thesis research on a CRSP project when this fits into the CRSP and host country goals and objectives. In all cases the needs of the CRSP for the research component would be the determining factor rather than the need of the student to complete a thesis.

While such junior personnel as graduate assistants can be used effectively in CRSPs under proper supervision, it is a fact that developing countries and AID administrators expect that the universities will make major use of their senior professionals in carrying out CRSP activities in developing country sites.

D. Budgeting, Financial and Programmatic Management and Control System

1. General

CRSP grants will be initially approved for periods of five years. While each CRSP should be evaluated annually, the major AID review will be done during the third year of operation and triennially thereafter. Extensions of authorization of a CRSP will be for three years, thus always providing a minimum of two years and a maximum of five years of forward authorization. Grants will be extended annually to provide an advanced obligation of funds for a minimum of two and a maximum of three years. This forward funding commitment is necessary for assurance to universities so that they can plan and budget university resources according to university regulations and planning requirements.

Each participating institution shall be responsible for management of its own approved CRSP budget in accordance with the grant, subgrant and standard provisions. It is expected that these provisions will not be contrary to policies and procedures of respective institutions. Carryover of funds from one year to the next is permitted at the institutional level. The ME will consider any unmet responsibilities and the workload of the institution for the year ahead.

The ME is allowed to include in its budget those sums which are to be expended for purchase of commodities and services for application to overseas sites. This is sometimes expedient to permit the management entity to make purchases for the host government because of foreign exchange regulations and difficulties for such country. The ME also manages funds to be passed through to LDC governments.

2. Program and Fiscal Management and Accountability

a. ME Responsibility and Fiscal Accountability

The ME institution is responsible for the successful implementation of the program and is accountable to AID for the use of federal funds under the grant. The following are the guiding principles:

- The progress of each participating institutions will be evaluated annually by the External Evaluation Panel established by each Management Entity. Evaluations will be made by visits to U.S. institutions and overseas sites as required.
- Annual progress reports on each project will be submitted to the ME by the cooperating institutions for review by the JCARD, AID, and the EEP.
- Expenditures will be subject to federal audit in accordance with applicable regulation including OMB Circular A-21 and A-110.
- The ME may request AID to perform audits of CRSP activities conducted in the United States and overseas.
- The ME may be expected to represent participating institutions in dealing with the Agency on patent rights on new technology developed by the CRSP. Amended patent laws now allow a Federal Agent to grant to a business or a university the right of patents resulting from its activities supported by Federal grant or contract

funds.^{11/} Amended CRSP grant documents to the ME should reflect changes in the patent law. New technology developed from CRSPs is to be managed so as to maximize U.S. public benefits and assure maximum utilization in LDCs.

- AID monitors all aspects of a CRSP and may require such reports as deemed necessary within AID regulations beyond those required in the grant documents.

b. Use of Funds

All CRSP funds from both university and AID sources may be used for such approved CRSP purposes as (in compliance with standard provisions of the grant agreement), financing:

- those components of appropriately oriented U.S. based research programs directly and significantly contributing to the solution of developing country problems;
- planning and organizational costs which are necessary to carry out the research program;
- overseas research activities of U.S. institutional employees including graduate students working on approved collaborative research programs;
- research arrangements of management entities and eligible universities with collaborating developing country institutions or individuals, and for conducting research in practical developing country farm situations to test validity, relevance and applicability of findings;
- developing country and U.S. graduate students and other junior U.S. scientists on research necessary for implementation of problem-solving activities;
- the development and operation of research information exchange systems including conferences, data storage and retrieval systems, publications, materials exchanges, professional exchange arrangements and any other arrangements necessary to the execution of problem-solving activities;

^{11/} Formerly such patents were held by the U.S. Government. Under the new law the U.S. Government (AID) retains the right to license the use of the patented innovation to a foreign government or international organization. The Federal agency may also elect to hold the patent when in the U.S. Government's and public interest to do so (as was the case with the malaria vaccine).

- special CRSP activities in joint projects with international agricultural research centers;
- limited technical service components may be provided under a CRSP where such service is appropriate to CRSP research goals, but technical services not related to the CRSP research goals, which are to be undertaken as contracts should not be included in CRSP grant activities;
- indirect costs associated with programs based on negotiated rates established by the cognizant federal agency; and
- such other functions as are essential to effective conduct of approved collaborative research programs.

c. Matching Requirements

The matching requirement for U.S. universities participating in a CRSP is based on the concept that pursuit of CRSP goals will mutually benefit AID's interest in providing development assistance for developing countries and the interest of U.S. universities in improving U.S. agriculture. With this mutuality of interest, each university should plan its research participation to fit its domestic goals and those of AID in the CRSP. A participating federal agency is not required to match. The federal agency's contribution is its existing program that the CRSP would build on.

Institutional commitment to the program is the test of the institution's interest and participation in a CRSP. Costs of any of the following items may be considered for matching contributions by an institution in accordance with OMB Circular A-21 and the applicable provisions of AID Handbook 13:

- a continuing component of the CRSP program at the institution which is international in dimension and appropriate to the specific CRSP goals;
- an additive to an appropriate existing program at the institution which is international in dimension and appropriate to the CRSP goals; and
- a reordering, modification, or enhancement of an appropriate existing research program at the institution, developed as an international dimension appropriate to the CRSP goals.

Within these definitions, each CRSP is required to match with non-federal resources (in cash or in kind as valued) 25 percent of the federal funds provided by AID, except for those costs paid by federal funds that have been determined to be exempt from these requirements, as defined herein or as exempted in the following paragraphs. The 25 percent minimum, non-federal contribution is a general guideline which would apply to most CRSPs.

Exception in specific cases where this might be unrealistic or inappropriate may be considered jointly by BIFAD and AID, if the element of collaboration is substantial and apparent. Within a single CRSP, it is not necessary that the Federal cost of every institution or cost of every single activity or project within an institution be matched, as long as the aggregate of all the federal costs of projects and activities within the overall CRSP meet the 25 percent requirement.

In addition, many U.S. universities and other institutions are conducting large research programs in the general subject matter area of a CRSP which, while not specifically a part of the CRSP, have the potential, if appropriate linkages are established, to advance substantially the achievement of the CRSP objectives. The amount of such research and the nature of its relationship to, and planned linkages with, the CRSP should be described in the contributing institution's proposal in a manner that makes it clear that, unlike the direct contribution to the CRSP, this is not a legal commitment and is not subject to federal audit as part of the CRSP.

The following costs in a CRSP effort are excluded from the matching requirement:

- cost to operate the ME.
- funds committed under the terms of a formal CRSP host country subagreement, including funds for facilities, host country personnel services, and equipment and commodity purchases by a participating U.S. institution for use by a host country entity or by the U.S. institution in a host country. Funds for these costs may be held apart in reserve by the participating U.S. institution until expended directly to a vendor for the goods and services described. Also, the funds may be passed to the host country for its purchases and use in accordance with the agreement.
- costs for training of participants as defined in AID Handbook 10, Chapter 1, paragraph 1B.^{12/} Provisions for such training normally would be made in the formal subagreement.

^{12/} "AID participants are foreign nationals sponsored by AID to receive training outside their home countries. This includes those whose training programs are funded by AID loans or grants or in some cases, are funded independently or on a reimbursable basis by the government of a developing country. Management of a participant's program is the responsibility of either DS/IT, an AID Mission or a contractor of AID or of a host country. Foreign nationals traveling on international travel orders or financed under general support grants are not considered participants."

- hospital and medical costs of U.S. personnel of the CRSP while serving overseas.^{13/}

All AID financed costs borne by AID that are associated with the performance of employees of participating U.S. institutions, working in the United States and in the developing countries on both short and long-term assignments, where federally funded under the CRSP, are program costs of the CRSP and must be matched.

d. Use of Non-Title XII Institutions

There may be times when there is a need for a type of expertise that is not available among the CRSP institutions or other Title XII institutions, but is available in a non-Title XII institution. The ME is authorized to subcontract with the non-eligible institution to obtain such expertise. In such cases the contracting institution would not participate in the governance of the CRSP as do subgrantees. However, AID funds expended for services of such a non-Title XII, non-eligible institution would have to be matched, and such an institution is not required to provide the required matching funds. Such an institution may volunteer to fill the matching requirement, but unless it does volunteer to provide the matching funds (and this must not be a condition for their services), the CRSP organization must provide the matching requirements.

e. AID Mission Participation in CRSPs, and Joint Programs Between CRSPs and International Agricultural Research Centers

Some missions have contributed funds to extended activities of CRSPs. Where a USAID Mission is interested in some research component of the CRSP being done in that country and the Management Entity of the CRSP agrees that such research effort is related to the CRSP research objectives and activities and can be conducted by the CRSP, the USAID Mission would discuss with the Management Entity the type, amount, and method of support that the Mission wishes to provide for that CRSP in the country (See also Section V. A.1.).

Such arrangements, permit opportunities for expanding and accelerating CRSP activities as long as the participation relates to the objective of the CRSP, is an appropriate grant activity, and these activities do not dilute or impinge on other CRSP resources to achieve the CRSP objectives.

Missions may provide financial support for the research of a CRSP through the Science and Technology Bureau using the CRSP grant document. The grant would require modification by the AID/W contract office, with prior approval of the Bureau for Science and Technology. Such financial support would be appropriate only where the USAID Mission would not be involved to any substantial degree with the research program.

^{13/} Participating institutions must carry their own medical insurance for their personnel, and participants must be covered by AID's insurance program.

Missions sometimes provide informal local services to a CRSP to facilitate its operation in the country. While this can be encouraged when appropriate, it is not a requirement under the CRSP agreements.

USAID Missions are also authorized to issue grants, cooperative agreements, and contracts using established authority delegated to them. Separate grants, cooperative agreements, and contracts, which are not a part of the CRSP agreement, can always be made to participating institutions, including the Management Entity.

Separate grants and cooperative agreements are negotiated directly by the Mission under AID's standard grant regulations. The terms of these grants, including matching requirements, are negotiable with the Mission. This approach is workable within the CRSP so long as it suits the research goals of the CRSP and there is agreement within the CRSP structure of participating institutions, and within AID-Washington's Science and Technology Bureau which has primary management responsibility for the AID CRSP grant program.

New contracting regulations (Parts 6 and 35 of the FAR) make it possible for USAID Missions to award research and development contracts noncompetitively. These awards must be directly associated with CRSP research goals and activities, and meet the criteria set forth in the contracting regulations for noncompetitive contract awards. These awards are justified and negotiated by the USAID Mission involved, and would be appropriate when the USAID requires a contractual arrangement in lieu of a grant or cooperative agreement arrangement.

CRSPs also are beginning to develop joint projects with the International Agriculture Research Centers under separate AID Regional Bureau and USAID Mission funding. One model that is being used for funding is for AID to make a grant to the center for implementation of a program under a joint agreement between the center and a CRSP. Provisions are made in the grant for a subgrant from the center to the CRSP. Other possible funding mechanisms may be possible.

Joint projects with IARC's have the advantage of pooling international scientific resources on a common problem where the comparative advantage of each party can be utilized to the fullest. For example, U.S. institutions can provide academic training and the more basic backup biological, genetic, and other research requiring sophisticated laboratories and staff which are more limited in most centers than in universities.

E. Reviews and Evaluations

1. Internal Reviews

The ME is expected to develop procedures with the TC and Board for appropriate internal reviews for a given CRSP, utilizing reports of the EEP. These reviews are not to replace EEP evaluations, but should review these evaluations in terms of impact on the program and on institutional involvement. For the purpose of such internal reviews, the ME may assemble the PIs and host country representatives.

2. External Evaluations

The external evaluation of CRSPs, mentioned in other sections of this document, are repeated under this heading to facilitate use of the Guidelines. The external evaluation by the EEP is most important to the CRSP operations to assure objectivity in decision making on important and sometimes difficult institutional issues. A scope of work and set of criteria should be developed for the EEP by the ME in consultation with the Board of Directors and the Agriculture Office of the Bureau for Science and Technology.

Principal purposes of the evaluation are to: maintain programmatic focus and effective scientific balance of research toward achievement of objectives; identify inadequate performances, identify irrelevant, marginal activities to CRSP objectives; consider effective balance between research and training for development of institutional research capability; assess the balance of domestic versus overseas research in terms of effectiveness of solving constraints in developing countries; evaluate the cost-effectiveness of the entire CRSP operation in terms of actual cost of doing business versus costs of alternatives that may be less, more efficient, and more effective; examine ways of dissemination of research results, and the effectiveness of utilization, a measure of the appropriateness of the research; and report its findings and recommendations annually to the ME, the Board, AID, and JCARD/BIFAD. Some evaluation needs to be made at least annually, although components of an evaluation may be on-going throughout the year. In-depth evaluations with overseas and U.S. site visits should be made within the triennial period in preparation for the Triennial Review.

The ME in consultation with collaborating institutions and the EEP will develop a working schedule for the EEP for comprehensive annual reviews. In order for the EEP to have the optimum effectiveness, its members should be able to have contact with PIs and other CRSP personnel at meetings where technical reports and discussions are made.

The annual report of the EEP is submitted to the ME who in turn provides copies to AID and JCARD/BIFAD. Actions on the EEP's recommendations are considered by the Board, TC, and ME, which can make the final decision. Any decision contrary to the EEP recommendations should be justified in writing to the Board and reported by the ME to AID, JCARD/BIFAD.

3. Triennial Review Process

While elements of this section are covered elsewhere, the process for the Triennial Review is specific and requires separate coverage despite the necessity for some repetition in these Guidelines. Each CRSP will be subject to a triennial review, which will be scheduled by AID. The purpose of the Triennial Review is to determine whether extension for a CRSP is to be authorized for an additional three years, and to make administrative decisions regarding amounts of forward funding. AID will prepare such a schedule in consultation with the ME of each CRSP.

These reviews will consist of a technical review by the EEP, as described in the previous section, and an administrative management review by AID. AID's technical review will utilize the EEP review if there has been

one. The EEP will make a special evaluation for the Triennial Review, and will schedule its evaluation to coincide with the Triennial Review. Therefore, the EEP's evaluation for this exercise will be in much greater depth as the Agency and BIFAD/JCARD will depend heavily on the EEP's evaluation for reaching a decision for the Agency to extend or not to extend the CRSP for another three years.

In preparation for a Triennial Review, the AID Program Manager will query each Mission involved in the CRSP, and through the Missions query host country and other involved in-country agencies on the performance and potential for the CRSP. Missions will be asked to quantify inputs they would like to make to the future operation of the CRSP. Members of AID's Agricultural Sector Council and of the BIFAD Staff will be invited to comment. From responses obtained and other information the AID Program Manager will prepare a scope of work for AID's administrative management review, which outlines issues and problems to be covered.

The ME will make preparations for AID's Triennial Review by preparing appropriate reports on progress and documents on issues to be addressed and will make EEP annual reports available. The ME will submit issues and problems on behalf of the program to the AID Program Manager.

AID's report on its administrative management review will be submitted to the ME which will use the recommendations to adjust the program and the CRSP proposal to be submitted to AID for the three year extension of the grant.

The ME will develop a proposal for a three year extension of the CRSP grant, based on technical recommendations of the EEP, the TC and Board, and the administrative management recommendations of AID. The proposal will include:

- Executive Summary - for the total program; including progress on removing defined constraints, a brief statement on each subgrant, including progress by each one and proposed activities overall and for each subgrant.
- A five-year Forward-Rolling Program Plan with annual work plans and budgets;
- Subgrant activities - including general progress on objectives for prior activities and a more detailed statement on the most recent two years along with a plan of action for projected activities. Success stories, linkages established, and specific activities in developing countries. Documenting quantitative and qualitative benefits to U.S. agriculture, as well as to developing countries, are of particular interest to AID and BIFAD.
- Management entity activities including management procedures employed and activities not adequately described in subgrant reports. Responses to EEP recommendations should be shown.

- Summary Budgets - actual or projected yearly budgets from inception through the year of proposed extension, with a five-year forward horizon, shall be submitted for each subgrant, for the ME and for any other subgrants and subcontracts not otherwise covered. These shall be presented according to line item categories such as salaries, fringe benefits, operations, equipment, international travel, domestic travel, other direct costs, and indirect costs. AID grant document contributions, participating institutions contributions, developing country contributions shall be shown in separate columns. The AID Program Manager will provide advice on a specific format for presentation.
- A summary report will be prepared and presented by the ME, covering all the recommendations made by the EEP during the three previous years, the actions and decisions made, and justification of the ME's failure to take action, or its decision to take contrary actions.

AID and BIFAD will convene a joint meeting in Washington of the JCARD-CRSP Panel and a subcommittee of AID Agricultural Sector Council to review the ME's proposal for extension of a CRSP. The ME will present the proposal for extension for review and discuss at that meeting.

The subcommittee of the Sector Council reports to a plenary session of the Council on its findings and recommendations. The CRSP Panel reports to the JCARD which reports to BIFAD. BIFAD's recommendations are submitted to the Agency which considers these recommendations along with those of the Sector Council. If favorable, the three-year extension is granted, subject to the availability of funds.

4. In-country Advisory Committees

While the model of in-country coordinating committees may not be necessary for all circumstances, it has been used effectively by at least one CRSP and is worthy of use by other CRSPs in appropriate situations. The concept is the creation and use of an in-country committee that consists of representatives from various interested international assistance organizations, such as FAO and the World Bank, and the host government, U.S. AID Representative, and CRSP personnel. The committee performs a variety of functions, including advance review and endorsement of research plans, of training programs for host country personnel, travel plans, and other relevant programs. The committees also discuss new technology being generated, means of spreading this technology, and means of coordinating other donor activities with the CRSP.

5. Pass-through Funding

Pass-through funding will be a normal component of each CRSP and this practice will be used to assist participating prime countries in expanding activities to carry out the CRSP objectives. Provisions for such pass-through funding must be made in the MOU, and must be made under the CRSP grant document provisions for subagreements.

F. Travel

1. General

Inherent in the CRSP structure is the necessity for frequent and extensive travel both domestically and internationally. In recognition of the expense of travel and of the general desire to constrain travel costs supported by the U.S. Government, it is imperative that travel be limited to that which is demonstrably essential to the CRSP effort. All travel should be regulated by the budget structures approved by the ME in annual expenditure plans. All international travel will be monitored and approved by the ME and submitted to AID-Washington for approval.

In order to make travel manageable, the ME in cooperation with other CRSP entities should develop an annual, semi-annual, and quarterly travel plan and a system of travel control. While the ME can exercise ultimate decisions, participation of the administrative management staff in each institution, such as deans and department heads, in the planning and control process can facilitate in the management problem.

The ME should also develop and issue criteria for travel. For example, the use of invitational travel for personnel of international centers and other organizations funded by AID would not normally be a practice of a CRSP.

2. Clearances

International travel will require the submission of requests by the ME to the AID Program Manager who will in turn seek USAID Mission approval and host government concurrence in order for AID-Washington to grant approval. Block approvals and innovative communication procedures to facilitate authorizations are encouraged as outlined above.

3. Reports

The ME is required to prepare and submit annual reports to AID. The ME, in turn requires such reports from participating institutions and from the EEP. Travel reports are required of the CRSP traveller after each overseas visit.

VI. CRSP OUTPUTS

A. General

The ultimate goal and objective of CRSP's is to increase production and improve consumption of food in developing countries. The prime objective of CRSPs is to generate the technology applicable to the developing countries to make this possible. A corollary to this objective is to improve research institutional capability in prime and other countries where research is conducted so that they can ultimately operate independently and play lead roles in spreading technology in their respective ecological zones and geographic regions. A spin-off in the dual objectives of CRSP is the benefit to U.S. agriculture, a *raison-d'etre* for U.S. universities to contribute their resources.

B. Extending the Results of CRSPs

While the CRSP effort itself is not the principle vehicle to extend research results, it can and should establish scientific linkages and disseminate information to facilitate extension. Each CRSP effort should include a component to demonstrate on a research pilot basis the applicability of results obtained. Furthermore, CRSP personnel should continue to manage research results until they can be passed along to an agency suitable for extending them. This may be accommodated through workshops, conferences, linkages with international centers, publications, and through U.S. institutional programs. Application of results, whether facilitated through technical assistance, ministries, cooperative extension services, or other means should be visualized as taking place in the LDC where the results were generated, in other appropriate LDCs and in the U.S., as appropriate. On an international basis, the establishment of scientific network of cooperating countries and international centers can be an effective method of getting the technology out of the prime countries and into use in the linkage countries.

C. Overseas Operations

1. USAID Missions

The importance of Mission involvement and participation to the success of CRSPs is defined elsewhere in this document. As a point of emphasis, the role of the ME in keeping Missions informed about CRSP efforts will be continuous in view of the continual changes that take place in Mission personnel and the need to keep Missions informed and involved to gain and retain their support.

2. Memoranda of Understandings

In addition to the importance assigned already to these instruments, it is necessary to emphasize that they should be updated at appropriate intervals, and the existence of such documents needs to be continually reinforced in the minds of all concerned and especially when there are personnel changes in the agencies/institutions involved. USAIDs in prime and linkage countries must be provided with copies of the MOUs.