

Effective Management for Collaborative Research Support Programs:
Issues and Opportunities

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Executive Summary

Over the past three years, all nine of the Collaborative Research Support Programs² (CRSPs) have undergone an administrative management review (AMR) in preparation for extensions or renewals of each one's grant or cooperative agreement.³ Midway during that process, an interim report on the "lessons learned" from those reviews was prepared and given limited circulation. With the completion of the reviews for all nine CRSPs, the Office of Agriculture within the Bureau for Economic Growth, Agriculture, and Trade (EGAT) commissioned a report to assess the results of the reviews and to provide an assessment of management options for the program.

This report presents the findings of that review of CRSP management structures and operations. It also introduces issues for consideration by the Strategic Partnership for Agricultural Research and Education (SPARE), the Board for International Food and Agricultural Development (BIFAD), the wider university community and the United States Agency for International Development (USAID) with the intention of identifying additional opportunities by which the CRSP program can meet the needs of international agricultural research both in the U.S. and in developing countries.

It is critically important to see the issues surrounding CRSP management as the product of a two-sided relationship between the University Community and USAID, where both partners are responsible for creating and maintaining a good relationship. Improving CRSP management is not a goal that can be reached only by the Universities or within USAID. It is a goal that requires adjustments on both sides to institute practices that increase financial and reporting efficiency within the CRSPs as well as within USAID's funding and communication processes. USAID procedures often contribute to delays and high transaction costs for the CRSPs.⁴ At the same time, the AMR reviews have identified many ways within the CRSPs arena of control that could be improved, and many such efforts have been made and are documented in this report.

After a short introduction, the report highlights four topics: current research priorities in agriculture; the definition of CRSP objectives; the choice of assistance mechanisms used to support research; and the issue of program competition. The report concludes with a presentation of five categories of management issues.

² The Collaborative Research Support Program was authorized under Title XII of the International Development and Food Assistance Act of 1975. In October 2000, the program was reauthorized under the Famine Prevention and Freedom from Hunger Improvement Act of 2000 (P.L. 106-373).

³ BASIS, August 2000 (and revisited for this report in September 2003); SANREM, November 2000; INTSORMIL, April 2001; Peanut, April 2001; Soils, 2001; Bean/Cowpea, November 2001; IPM January 2002; Pond Dynamics/Aquaculture March 2002, Global Livestock, November 2002.

⁴ The Swindale report (1995: x) stated, "CRSP operational efficiency has been seriously eroded by the instabilities inherent in USAID's overall operations. We believe most of these problems are solvable and that USAID management at the most senior level should eliminate the blockages in the existing system with dispatch."

Recommendations:

1. BIFAD should carry out a comprehensive review of research priorities in international agriculture to guide decisions about the initiation of new topics and continuation of existing topics for research support. This sectoral review should be followed by a CRSP program review to determine whether current program topics are aligned with the priorities identified in the sectoral review.⁵
2. The current CRSP guidelines (1985 and 2000 versions) should be rewritten to reflect the Title XII legislation of October 2000, the current goals and objectives for the program, existing operating procedures, changes resulting from USAID reorganization, and the use of new types of assistance mechanisms, and they should be revised accordingly. Issues to be addressed or revised in the guidelines include: conditions under which to change and/or compete management entities and/or specific research activities; institutional building for host countries; gender integration into CRSP activities and administration; scheduling and form of internal and comparative CRSP evaluations.
3. Individual CRSPs should continue their efforts to put into effect recommendations from the administrative and management reviews (e.g., greater use of electronic forms of communication for financial and administrative reporting, for facilitating exchanges between PIs, and for publication; harmonization of financial procedures; clarification of cost-sharing requirements; and tracking of alumni).
4. USAID, in its search for a mechanism to provide mission access to the scientific expertise of universities and the CRSPs, must be careful not to hinder or destroy the effective mechanisms already developed to support long term Host Country-oriented research and capacity development. Perhaps USAID has yet to develop assistance mechanisms that will meet the needs of all these partners (bureaus, missions, US universities and institutions, and Host Country (HC) institutions). Refinement of existing agreements, identification of new mechanisms, or the use of multiple mechanisms may be necessary to support all of the activities of the knowledge continuum. This report has concluded that both the traditional form of grants and cooperative agreements as well as the leader with associate form could be effectively used to support CRSP goals – it is less the form of the assistance agreement than the way in which it is implemented that seems to be the key to effective management.
5. USAID should identify and address problems in its own procurement and administrative processes that contribute to inefficiencies in CRSP, including a lack of uniformity in CRSP assistance agreements regarding reporting

⁵ It has been suggested that a description of this process be written into new Requests for Application (RFA) so that those bidding on new CRSPs and/or renewals of existing ones are aware of possible changing priorities.

requirements, funding schedules, processes for purchases and/or waivers, and tracking pipeline funds.

6. The role of the CTO needs greater definition and clarification within USAID. There is need for better coordination and communication among CTOs on USAID policy, expectations, and requirements for the CRSPs. CTO positions should not be defined solely in terms of CRSP responsibilities, but could be linked to broader advisory responsibilities on their topic of expertise to the agency. With the CRSPs now located in two different offices within EGAT, it is important that a mechanism be developed to provide coordination and common perspectives on CRSP management.
7. USAID should consider establishing a single point of contact to whom interested individuals can turn for information about the CRSPs and/or other university-based or Title XII programs.

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Acronyms

AC	Administrative Committee
AFS	Agriculture and Food Security
AMR	Administrative Management Review
ARS	Agricultural Research Service
BASIS	Broadening Access and Strengthening Input Market Systems
BIFAD	Board for International Food and Agriculture Development
BOD	Board of Directors
CA	Cooperative Agreement
CRSP	Collaborative Research Support Program
CTO	Cognizant Technical Officer
EEP	External Evaluation Committee
EGAT	Economic Growth, Agriculture, and Trade
INTSORMIL	Sorghum/Millet
IPM	Integrated Pest Management
JCARD	Joint Committee on Agriculture Research and Development
JRC	Joint Research Committee
LWA	Leader with Associate
ME	Management Entity
MOU	Memorandum of Understanding
NRM	Natural Resource Management
PI	Principal Investigator
RFA	Request for Application
RFP	Request for Proposal
SANREM	Sustainable Agriculture and Natural Resource Management
SPARE	Strategic Partnership on Agricultural Research and Education
TC	Technical Committee
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

I. Introduction⁶

Over the past three years, all nine of the Collaborative Research Support Programs⁷ (CRSPs) have undergone an administrative management review (AMR) in preparation for extensions or renewals of each one's grant or cooperative agreement.⁸ Midway during that process, an interim report on the "lessons learned" from those reviews was prepared and given limited circulation. With the completion of the reviews for all nine CRSPs, the Office of Agriculture within the Pillar Bureau for Economic Growth, Agriculture, and Trade (EGAT) commissioned a report to assess the results of the reviews and to provide an assessment of management options for the program.

This report presents the findings of that review of CRSP management structures and operations. It also introduces issues for consideration by the Strategic Partnership for Agricultural Research and Education (SPARE), the Board for International Food and Agricultural Development (BIFAD), the wider university community and USAID with the intention of identifying additional opportunities by which the CRSP program can meet the needs of international agricultural research both in the U.S. and in developing countries.

Recommendations:

1. BIFAD should carry out a comprehensive review of research priorities in international agriculture to guide decisions about the initiation of new topics and continuation of existing topics for research support. This sectoral review should be followed by a CRSP program review to determine whether current program topics are aligned with the priorities identified in the sectoral review.⁹
2. The current CRSP guidelines (1985 and 2000 versions) should be rewritten to reflect the Title XII legislation of October 2000, the current goals and objectives for the program, existing operating procedures, changes resulting from USAID reorganization, and the use of new types of assistance mechanisms, and they should be revised accordingly. Issues to be addressed or revised in the guidelines

⁶ The authors would like to extend thanks to all the CRSP and USAID staff, as well as members of BIFAD and SPARE.

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- include: conditions under which to change and/or compete management entities and/or specific research activities; institutional building for host countries; gender integration into CRSP activities and administration; scheduling and form of internal and comparative CRSP evaluations.
3. Individual CRSPs should continue their efforts to put into effect recommendations from the administrative and management reviews (e.g., greater use of electronic forms of communication for financial and administrative reporting, for facilitating exchanges between PIs, and for publication; harmonization of financial procedures; clarification of cost-sharing requirements; and tracking of alumni).
 4. USAID, in its search for a mechanism to provide mission access to the scientific expertise of universities and the CRSPs, must be careful not to hinder or destroy the effective mechanisms already developed to support long term Host Country-oriented research and capacity development. Perhaps USAID has yet to develop assistance mechanisms that will meet the needs of all these partners (bureaus, missions, US universities and institutions, and Host Country (HC) institutions). Refinement of existing agreements, identification of new mechanisms, or the use of multiple mechanisms may be necessary to support all of the activities of the knowledge continuum. This report has concluded that both the traditional form of grants and cooperative agreements as well as the leader with associate form could be effectively used to support CRSP goals – it is less the form of the assistance agreement than the way in which it is implemented that seems to be the key to effective management.
 5. USAID should identify and address problems in its own procurement and administrative processes that contribute to inefficiencies in CRSP programs, including a lack of uniformity in CRSP assistance agreements regarding reporting requirements, funding schedules, processes for purchases and/or waivers, and tracking pipeline funds.
 6. The role of the CTO needs greater definition and clarification within USAID. There is need for better coordination and communication among CTOs on USAID policy, expectations, and requirements for the CRSPs. CTO positions should not be defined solely in terms of CRSP responsibilities, but could be linked to broader advisory responsibilities on their topic of expertise to the agency. With the CRSPs now located in two different offices within EGAT, it is important that a mechanism be developed to provide coordination and common perspectives on CRSP management.
 7. USAID should consider establishing a single point of contact to whom interested individuals can turn for information about the CRSPs and/or other university-based or Title XII programs.

II. History of the Collaborative Research Support Program

The Title XII amendments in 1975 to the Foreign Assistance Act of 1961 were intended to strengthen the capacity of U.S. Land Grant and other eligible universities in agriculture, by providing long term support to solve food problems of developing countries and to develop their agricultural systems.¹⁰ Title XII authorized program support to collaborative university research that built a foundation for developing USAID-funded programs that included the Collaborative Research Support Program (CRSP), a joint USAID/US university program, and funding for international research entities (such as the Collaborative Group on International Agricultural Research (CGIAR) system).¹¹ The Title XII legislation also authorized the formation of the Board of International Food and Agricultural Development (BIFAD), composed of US university, private organizations, and food and agricultural industry representatives to provide guidance on foreign assistance to the sector. Neither the 1975 legislation nor the 2000 amendment actually identify or name the CRSP or the CGIAR as a specific program. Rather, the original legislation states under General Authority, that "... the President is authorized ... (3) to provide program support for long-term collaborative university research, in the developing countries themselves to the maximum extent practicable, on food production, distribution, storage, marketing, and consumption."

A number of reviews on the research and administration of the CRSPs have found them to be effective programs that have contributed significantly to both international and domestic agricultural productivity and human capacity development.¹² Initiated over twenty years ago, they have both brought a level of excellence to international agricultural research and have also provided opportunities for US universities and colleges to become engaged in an important international arena. The programs have provided important technological innovations to developing country agriculture and trained students from around the world in a wide array of scientific disciplines.

The Small Ruminant CRSP (now Global Livestock) started in 1978, and was quickly followed by several more, as shown in Table 1 below.¹³ The current CRSPs are listed below by name and identified by the site of each management entity (ME), when that institution became the ME, initiation date, and the end of their current authorization period. The topics of the CRSPs were chosen from a study conducted under the auspices of the Joint Research Committee (JRC) of the BIFAD, which listed the top twenty priority research topics for international agriculture.

¹⁰ See also the recent comprehensive report by Kenneth Sherper on USAID-US University programming.

¹¹ Title XII was reauthorized in 2000 with broadened definitions of agriculture and areas of operation, and a renewed commitment to supporting long-term programs in the creation of new knowledge and the solution of agricultural development problems at home and abroad.

¹² Some reports reviewing the CRSP program as a whole include Hogan et al 1986, Swindale et al 1995, Miller and Rubin 2001, and Sherper 2003.

¹³ Nine CRSPs are currently in operation. Some, including a nutrition CRSP and the "CRSP-like" Postharvest Collaborative Agribusiness Support Program (CASP), have been discontinued. Others have been reconfigured for reauthorization.

Within a year or two of their initiation, USAID sought to create guidelines to clarify the process for CRSP selection and initiation, and, as years passed, for their operation. The guidelines were developed by the JRC (and later the Joint Committee on Agricultural Research and Development (JCARD)) and reflected USAID's vision at that time of the CRSPs as a distinct type of program. The CRSPs differed from other USAID programs because of their **long-term character**, their emphasis on **collaboration with developing country institutions**, and their explicit objective of providing a **dual benefit** for both the US and developing countries. Neither the definition of "long-term" nor any degree of required collaboration were explicitly spelled out in either individual CRSP assistance documents or the CRSP guidelines more generally.

The CRSP Council recently described the CRSPs and their activities:

The Collaborative Research Support Programs (CRSPs) are global partnerships for long-term research between universities in the U.S. and developing countries. Their goal is to foster scientific knowledge, advance sustainable agricultural growth and management of natural resources, educate scientists, prepare future teachers and decision makers, and strengthen developing country institutions. The partnerships encompass 54 U.S. universities, 20 international agricultural research centers, 184 host country research centers and 70 extension institutions in 67 developing countries.¹⁴ All of the CRSPs have been highly successful in establishing effective programs that have significantly impacted developing countries around the world. The FY03 budget for the nine CRSPs was \$22 million.

In the rapidly changing international environment that now characterizes top quality scientific research and development in agriculture, the CRSP programs as well as their main funding source, USAID, can benefit by refining management procedures to take advantage of new thinking in management principles and to take advantage of new information technologies. Constraints on government funding for agriculture and the rise of public-private partnerships put a premium on streamlined effectiveness. In this environment, all the participants in the CRSPs—universities and their public and private partners, USAID, and host country (HC) institutions and partners—can work together to discard outdated administrated procedures and to reassess research priorities. A part of the process should also include updating and editing the CRSP guidelines to conform to the Title XII legislation of November 2000 and to reflect recent revisions to the Agency's

¹⁴ The CRSPs have research projects in **Africa** (Benin, Botswana, Burkina Faso, Cameroon, Cape Verde, Chad, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Kenya, Madagascar, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, South Africa, Sudan, Tanzania, Uganda, Zambia, and Zimbabwe), **Asia** (Bangladesh, Cambodia, East Timor, India, Laos, Nepal, Pakistan, Philippines, Sri Lanka, Taiwan, Thailand, and Vietnam), **Latin America and the Caribbean** (Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, and Peru), and **NIS** (Albania, Bulgaria, Hungary, Kazakhstan, Kyrgyzstan, Russia, Turkmenistan, and Uzbekistan).

Agriculture Strategy, EGAT's Strategic Objective(s) for agriculture, institutional reorganization within USAID, and regional bureau strategies and action plans.

Table 1. Summary of current CRSPs

CRSP	Management Entity (starting year)	Date Initiated	Authorized Until
BASIS	University of Wisconsin (1996)	1996	Sept 2006
Bean/Cowpea	Michigan State University (1980)	1980	April 2007
INTSORMIL	University of Nebraska (1979)	1979	June 2006
IPM	Virginia Tech. University (1993)	1993	Sept 2004
Peanut	University of Georgia (1982)	1982	July 2006
Pond Dynamics	Oregon State University (1982)	1982	July 2004
SANREM	University of Georgia (1992)	1992	May 2004
Global Livestock	University of California, Davis (1978)	1978	Sept 2008
Soil Management	University of Hawaii, Manoa (1996)	1981	Sept 2007

Each CRSP operates according to the provisions of its assistance agreements¹⁵ and the CRSP guidelines developed collaboratively between USAID and BIFAD. Within USAID, the CRSPs are managed within the Pillar Bureau Economic Growth, Agriculture, and Trade in the Office of Agriculture and Food Security (EGAT/AFS) and the Office of Natural Resources (EGAT/NRM). A Cognizant Technical Officer (CTO) manages each CRSP by working closely with the Management Entity (ME) of its lead University. Some CTOs now manage more than one CRSP. All CTOs have additional responsibilities including providing technical guidance to the Agency in their area of expertise, either as individuals or as members of thematic and/or Strategic Objective teams.

Title XII established BIFAD to provide recommendations and guidance to USAID reflecting the collaborative aspect of the program. BIFAD is composed of members representing US universities, industry, and private organizations. It now meets on a regular basis, after a hiatus in the early to mid-1990s. BIFAD also formed a research sub-committee to provide guidance and make recommendations on research issues and program implementation, including the CRSPs. This committee was reconfigured in 2000. It is named the Strategic Partnership for Agricultural Research and Education (SPARE) and consists of six members: three representatives from USAID and three from universities (both public and private). SPARE reviews extension documents and presentations prepared by each CRSP as it nears the end of an authorization period, usually after five years. Based on its review, SPARE makes a recommendation to BIFAD on the continuation of each CRSP. In addition, BIFAD is also responsible for making recommendations to USAID on the "Guidelines for the Collaborative Research Support Programs"¹⁶ that address key management, operational, and evaluation issues.

The Guidelines are a living document, but they are advisory only and have no legal standing. First developed in 1977 and they have been amended at various times:

¹⁵ As of November 2003, seven are grants and two – SANREM and BASIS – are cooperative agreements.

¹⁶ Informally called the "CRSP Guidelines" or "Guidelines."

- ▶ In 1977, by the (former) Joint Research Committee (JRC) (October 11)
- ▶ In 1979, by the JRC (October 10) to “clarify the role of USDA and the 25 percent matching requirement, and to accommodate the General Counsel’s concern regarding the process of selecting participants.”
- ▶ In 1984, by the Joint Committee on Agriculture Research and Development (JCARD) (October 11), and were adopted by USAID in October 1985.
- ▶ In 1989 (October 30/November 2), concerning changes to the CRSP ME, for adding, deleting, and substituting institutions, and to permit extensions of CRSPs (after the initial grant period) of up to five years, under certain conditions

In August 2000, a sub-committee of BIFAD completed a rewriting of the CRSP guidelines, but these have not been formally approved by USAID’s legal office. In light of the changes in the definition of agriculture and the widening of the types of partners that are encouraged to become part of Title XII activities, it is important to complete the updating of the CRSP guidelines.¹⁷ This recommendation has also been put forward by SPARE to BIFAD in its report of October 1, 2003:

SPARE recommends that the CRSP Guidelines be revised. A revision of the Guidelines was completed in 2000, but never adopted. It is recommended that new Guidelines be drafted to reflect SPARE’s discussions with the CRSP Council and the wider university community, as well as reflect BIFAD decisions (page 14).

Revisions and updating of the CRSP Guidelines should reflect the issues presented in this report. Some key topics include discussing in greater detail reasons for terminating a CRSP or its ME, harmonizing financial procedures and reporting requirements across CRSPs, clarifying the role of the CRSP Council, integrating gender into CRSP research and administrative structures, and other points discussed in Section V of this report.

III. Critical Programming Issues

In the more than twenty years since the CRSP program was initiated, both the global context in which they operate, USAID development priorities, and the USAID context of assistance and procurement have changed significantly. Both research and training figure less prominently in USAID agricultural program support than they did when Title XII was initially passed, and the definition of appropriate research and training activities seems to many to have narrowed and/or become more applied in orientation. Support for and attention to agricultural research, though as important as ever, now receives considerably less support from USAID than in the past; there is greater involvement of private companies in research, which may influence the choice of topics to be investigated, and there is a rising concern that all US government funded activities follow a competitive process.

¹⁷ It has been suggested to draft guidelines for all Title XII activities and not only the CRSPs.

The university community has also changed. Many universities are facing difficult economic circumstances and are no longer able to provide the levels of support staff, student fellowships, or faculty perquisites that were common twenty years ago. Rising costs for laboratories and specialized training cannot be easily met from current federal, state, and foundation sources, forcing difficult choices among university programs. Many twelve-month salaried positions are being cut back to nine months, class loads and advising responsibilities are growing, and both tenure-track and tenured positions are increasingly competitive. The attacks of September 11, 2001 and ensuing conflicts in Afghanistan and Iraq have strengthened restrictions on the entry of foreign students into US universities. All of these conditions stress universities' abilities to absorb changes in USAID funding and objectives for the CRSP program.

Against this background, four larger questions have emerged as central to this review:

- What are the most important issues or topics facing agriculture and food systems globally that USAID can address through its research and assistance programs?
- What purpose or program need(s) does USAID envision the CRSPs fulfilling and has this changed since the program started?
- What is the best assistance mechanism for meeting this/these need(s)?
- When should the CRSP MEs (Management Entities) be competed and how?

These questions are not new ones; they have emerged in various forms since the CRSP program was initiated. In the current development context, however, it appears that the answers may be changing, and that it is now appropriate to have an open discussion about them. Furthermore, it is important to acknowledge that not all of the parties that have historically been part of the US university—USAID partnership reflect the same perspective in this discussion. The difference in perspectives is reflected wherever possible in the discussion that follows.

1. What are the most important issues or topics facing agriculture and food systems globally that USAID can address through its research and assistance programs?

Over twenty-five years ago, before starting any CRSP, the JRC of BIFAD carried out a study to identify the twenty most critical topics facing agricultural research. Their list of priorities defined the choice of topics for the first CRSPs: Small Ruminants, Sorghum and Millet, Beans and Cowpeas, and Peanuts.

The CRSP Guidelines state “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” (1985: 14).

Although three sub-sector reviews (for Integrated Pest Management (IPM), Sustainable Agriculture, and Pond Dynamics/Aquaculture) were carried out during 2002-3, it was not the purpose of the reviews to identify the relative importance of each area in relation to other possible topics for research in the agriculture and food sector, and, not surprisingly, each review concluded that its own sub-sector was critically important and inadequately funded. No overall review of current research priorities has been completed since the first one in the late 1970s, and no prioritized list has been maintained by SPARE (JCARD's replacement), by BIFAD, or by USAID, singly or jointly.

Without a comprehensive sector review, it is impossible to determine what broad research topics should be addressed through CRSPs. There is no objective way to determine the relative importance of each topic or how USAID should be spending its scarce resources.

SPARE has made a recommendation to BIFAD that a sector review be conducted.¹⁸ To date BIFAD has not forwarded that recommendation, and USAID has not adopted it. USAID should conduct an agricultural sector review (including those subjects identified as agriculture in the reauthorized Title XII legislation)¹⁹ to determine its priority topics for investment so that the most critical areas can receive support and less important topics can be phased out.

Several corollary questions should also be addressed:

- ▶ What should be the balance between research and application supported by USAID?
- ▶ How often should such a review be updated?
- ▶ What will be the link between the identification of new priorities and the establishment of new CRSPs and/or the termination of CRSPs working on topics of lower priority?

2. What purpose or program need(s) does USAID envision the CRSPs fulfilling and has this changed since the program started?

¹⁸ From the report of October 1, 2003, page 14: "SPARE recommends that an agricultural sector program review be conducted by USAID, and that the Agency's new Agricultural Strategy and the amended Title XII should serve as the basis for guiding the inquiry. The purpose of the review is to determine the congruency of the Agency's entire agriculture programming portfolio with the new Strategy and amended Title XII. The review is to identify existing gaps and redundancies in agriculture programming, as well as recommend actions to increase the sector's effectiveness."

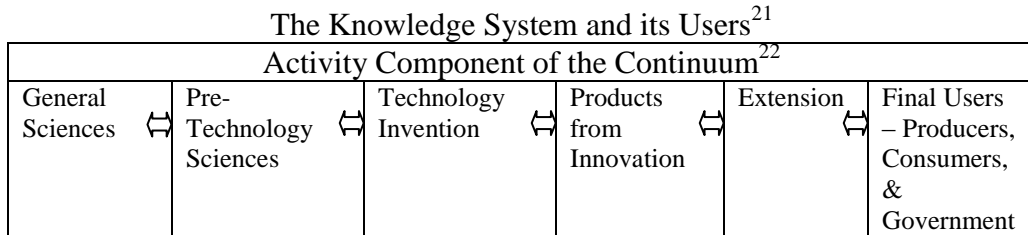
¹⁹ The term agriculture includes the science and practice of activity related to food, feed, and fiber production, processing, marketing, distribution, utilization, and trade, and also includes family and consumer sciences, nutrition, food sciences, and engineering, agricultural economics and other social sciences, forestry, wildlife, fisheries, aquaculture, floraculture, veterinary medicine, and other environmental and natural resource sciences. Agriculturists includes farmers, herders, and livestock producers, individuals who fish and others employed in cultivating and harvesting food resources from salt and fresh waters, individuals who cultivate trees and shrubs and harvest non timber forest products, as well as the processors, managers, teachers, extension specialists, researchers, policymakers, and others who are engaged in the food, feed, and fiber systems and its relationships with natural resources.

From Discovery to Application

Title XII, as amended, directs USAID to:

...[M]obilize the capacities of the United States land-grant universities, other eligible universities, and public and private partners of universities in the United States and other countries ... for: (1) global research ... (2) improved human capacity and institutional resource development ... (3) agricultural development and trade research and extension services...and (4) providing for the application of agricultural sciences to solving food, health, nutrition, rural income, and environmental problems, especially such problems in low-income, food deficit countries (Section 296(a), P.L. 106-373).

Engaging the US universities and other institutions was intended to promote the discovery of new knowledge as well as the application of this knowledge to solve problems. The path from discovery to application encompasses a range of activities along a continuum. Huffman and Everson 1993²⁰ provide an excellent discussion of the discovery and the use of knowledge process and identify six types of activities: general sciences, pre-technology sciences, technology invention, products from invention, extension, and final users. These six activities or components are part of an interactive continuum.



The bulk of CRSPs activities can be represented in the second and third of these phases with fewer projects in the first (general sciences) and fourth (products from invention), although this varies both across the nine current CRSPs as well as within each CRSP. Most CRSPs have outreach and dissemination efforts that can be understood as extension in the broad sense of the term, whether to other institutions or to the farmers in the field. The lengthy lists of publications by CRSP researchers attests to their success in developing knowledge that is appropriate to their core topics.

Working with USAID Country Missions and Regional Bureaus

²⁰ Huffman, W.E. and Evenson, R.E. 1993. Science for Agriculture: A Long-Term Perspective. Ames, Iowa: Iowa State University Press.

²¹ Based on Huffman and Evenson, 1993.

²² As defined by Huffman and Evenson -- General Sciences – Basic or fundamental research; Pre-Technology Sciences – Research directed towards producing discoveries that assist in invention; Technology Invention – Activities directed to the development of new technologies; Products from Invention – In agriculture these include both pre harvest and post harvest products; Extension – facilitates the transfer of knowledge to the user; Final Users – Farmers or producers, consumers, and governments.

As a centrally funded program, the CRSPs address research constraints around the world, but they carry out this work within specific countries. USAID has always intended the CRSPs to develop linkages with the USAID Missions, and in recent years the pressure for Missions to provide funding to support CRSP research has increased.²³ Engagement with missions and bureaus has had a mixed record. All of the CRSPs carry out their work with mission awareness of their efforts, and many work on topics that are of direct relevance to mission programs, frequently with enthusiastic support from specific mission or bureau staff members. What has been considerably more difficult is obtaining mission funding to support research activities, or organizing CRSP researchers to provide technical support to the missions. It is important to distinguish these two activities when discussing the future of CRSP relations with missions and bureaus.

Can the CRSPs provide short-term technical assistance to the Missions? Missions often need technical assistance to solve an immediate problem (such as to research coffee wilt disease in Uganda) or to provide outreach to in-country institutions for the benefit of the final user (such as cross-border workshops for women's groups in Ethiopia and Kenya). Others CRSPs are working on decision support systems to help extension agents in their work with producers. While extension continues to be an important component of the Title XII legislation, it was for a long time not encouraged as a CRSP activity. Providing technical support to the missions can and is being done successfully by many of the CRSPs, but there are some structural factors that make it difficult. CRSPs PIs are faculty members whose research is only a portion of their job descriptions, and the short-term horizons and rapid responses that typify some requests for technical assistance create difficulties for the CRSPs. Their annual or biannual workplans and budgets once developed and reviewed by CRSP technical committees cannot always be modified easily to take on new technical support activities, especially if they are not an integral outgrowth of the core research question. There is some variation across the CRSPs in their ability to handle these concerns; some CRSPs have taken a more problem-oriented approach to their research; other CRSPs have continued to emphasize more core research questions that are better suited to scientific methods.

In some cases USAID missions need technical assistance that may be best provided by scientists or specialists that are not part of the on going CRSP activities yet who are employed by the participating universities. What mechanisms can be developed to access these experts and make their services available to the missions? .

The other side of the question is whether the Missions can and do support CRSP core research. Some CRSPs have been able to obtain Mission support for their core research programs. The constraint on the part of the Missions is the extent to which the Strategic Objectives that define most of their funding encompasses CRSP topics. Some missions have more flexibility than others in this regard, and Bureaus have greater flexibility than missions. It might be helpful for USAID to identify the appropriate role

²³ Although all CRSPs have felt this pressure, the BASIS CRSP was initially created with the intention of getting up to half of its funding from Missions and/or Regional Bureaus. This goal was not achievable, and its renewal agreements modified this condition.

for CRSP CTOs and for the Offices of Agriculture and of Natural Resource Management in helping CRSPs negotiate Bureau and Mission funding for support of this type.

Capacity Building

One of the major roles of the CRSPs is to build capacity in both HCs and in the US. The two main components are human capacity and institutional capacity. Until the last few years, human capacity building emphasized degree training, mostly at the graduate level. Budget limitations have caused full-degree graduate training to be de-emphasized and participant training has received greater attention. Graduate training has been very successful for both HC and US students and has created a large, high quality cadre of scientists with skills, experience, and the international connections to enable them to continue their involvement in international activities. Institutional capacity development has not received the same degree of focus. Over the lifetime of the CRSPs, the institutional capacity of both HC and US institutions has increased. Capacity building is now receiving increased attention from BIFAD, which has presented USAID with a proposal for an increase in Human Capacity development through an expanded student-training program

In summary, it is very important that USAID, in its search for a mechanism to provide mission access to the scientific expertise of universities and the CRSPs, not hinder or destroy the effective mechanisms already developed to support long term Host Country-oriented research and capacity development. Perhaps USAID has yet to develop assistance mechanisms that will meet the needs of all these partners (bureaus, missions, US universities and institutions, and Host Country (HC) institutions). Refinement of existing agreements, identification of new mechanisms, or the use of multiple mechanisms may be necessary to support all of the activities of the knowledge continuum.

3. What is the best mechanism for achieving these need(s)?

The previous section identified several different purposes that are served by the CRSPs, including the discovery of scientific knowledge, the application of that knowledge for problem solving, providing technical assistance or expertise to USAID missions and bureaus, student training, information dissemination and outreach, possibly extension, and host country institutional support.

Some types of acquisition or assistance agreements, management structures, or funding levels might be better suited than others to accomplishing these varied goals of research, training, and/or technical assistance. As presented below, the choice between grants and cooperative agreements or contracts implies different types of relationships between cosigners.²⁴

²⁴ The discussion of acquisition agreements (contracts) is for illustrative and comparative purposes only. There has not ever been any suggestion that CRSPs operate under a contract rather than a grant or cooperative agreement.

There are two categories of funding by USAID: assistance and acquisition, and the choice of the appropriate mechanism depends on the purpose of the activity to be funded (both assistance and acquisition mechanisms are legislated in Title XII). According to the USAID website, **acquisition** refers to obtaining goods and services, through various types of contracts, for the use or benefit of the Agency. **Assistance** refers to transferring funds (or other valuables) from USAID to another party through grants and cooperative agreements for the implementation of programs, which will contribute to the public good through the furtherance of the objectives of the Foreign Assistance Act.

Thus the type of mechanism chosen is directly linked to the type of relationship that is intended to be established between USAID and the funded party. A central aspect of that relationship is the degree of autonomy or, conversely, the degree of control over the funded operations. A second aspect is the issue of how easily or difficult it is under a particular mechanism to enable missions to fund additional activities. Table 2 provides a summary of the points of difference.

Table 2: Funding mechanisms²⁵

<p style="text-align: center;">Acquisition “Procurement Contracts” <i>The purchase or lease of supplies or services through a contract for the government’s direct benefit or use.”</i></p>	<p style="text-align: center;">Assistance “Assistance Instruments” <i>The transfer of money...to an organization... to support a public purpose in support of the Foreign Assistance Act of 1961 as amended.</i></p>
<p style="text-align: center;">Contracts</p> <p><i>Contracts are fulfilled by vendors to provide goods and services. They are rarely required to provide cost-share. They are required to be competed as mandated by statute.</i></p> <p><i>Contracts may be terminated unilaterally by the government for cause or convenience.</i></p> <p><i>Contract costs are highly controlled by the government.</i></p> <p><i>“To the extent possible “contractors are normally provided with support from USAID for some logistical arrangements.</i></p>	<p style="text-align: center;">Grants and Cooperative Agreements (CAs)</p> <p><i>Grants and CAs are implemented by partners to implement programs. They are often required to provide cost-share. Competition is encouraged by policy.</i></p> <p><i>Grants and CAs contain provisions for unilateral termination for cause and for convenience; if the latter, both parties must agree.</i></p> <p><i>Grants and CAs are reimbursed for costs expended and are not bound by USAID salary levels.</i></p> <p><i>Recipients of grants and cooperative agreements do not normally receive support from USAID in registering with Host Governments or other logistical arrangements.</i></p> <p><i>“Assistance instruments (grants and cooperative agreements) shall not be used to provide for the performance of activities or programs over which USAID plans to exercise a substantial degree of operational control.”</i></p>
<p>Contracts purchase results or deliverables rather than activities. Therefore the scope of work on a contract has to define what the end results are going to be and should not tell the contractor how to do the work. A performance-based contract ideally provides a results-oriented scope of work, provides clear and objective performance standards and measurement tools, and can include incentives for superior performance.</p> <p>Technical Services Contracts are generally under the “technical direction” of the government, and the contractor accomplishes a scope of work</p>	<p>Grants are the appropriate instruments to conduct a program that does not expect to have “substantial Agency operational involvement (participation or intervention) during implementation, as long as it is conducted in accordance with the terms of the assistance instrument” (ADS 305.5.11). Under a grant, a recipient has “substantial freedom to pursue its stated program” (see USAID Sourcebook). The recipient provides periodic progress reports against stated benchmarks and through site visits “to determine if the recipient is using its best efforts to achieve the purpose of the grant or agreement” (USAID Sourcebook).</p>

²⁵ The choice of one or another instrument depends not on the functional activity or class of recipient, but on the U.S. government’s primary purpose in funding the activity and the character of the relationship that is intended to be created by the funding. (see <http://www.usaid.gov/pubs/sourcebook/usgov/choose.html>).

<p>under the terms and conditions of the contract. Under a contract, USAID is allowed to exercise “a substantial degree of operational control.”</p>	<p>Cooperative Agreements, by definition, include “substantial involvement” between USAID and the recipient. This involvement is limited to the following areas:</p> <ol style="list-style-type: none"> 1. Approval of the recipient’s Implementation Plans 2. Approval of specific key personnel 3. Areas of collaboration or joint participation²⁶ 4. Halting a construction activity
<p>Indefinite Quantity Contracts (IQCs) are contracts that contain multiple orders that allow USAID to obtain supplies and/or services without specifying the exact amount in advance. They are used to get technical assistance generally for periods of less than 120 days. When awarded, the contract specifies the types of services that are to be provided and the labor categories and their associated fixed daily rates. Costs for direct expenses are reimbursable at actual costs. IQCs vary in structure: in some cases, all requests for work are competed among all the subs; in others, only contracts over a specified dollar amount are competed further. Scopes of work are reviewed by the CTO before being directed to the Director of the IQC.</p>	<p>Leader with Associate Assistance Instruments can be either grants or cooperative agreements, depending on the degree of “substantial involvement” on the part of USAID, but they are also limited to the same four types of involvement as defined above. A leader grant can have an associate award that is a cooperative agreement, and vice versa.</p> <p>Leader awards are normally for five years, with the option of extending up to ten years. Associate awards may extend up to five years if so provided in the leader award, but they cannot extend for more than five years past the date of the expiration of the leader award.</p> <p>A leader award is made to a leader and its group of subs. A mission that wishes to fund an associate award under a leader award will submit to the CTO an activity description. The CTO will determine if it fits under the umbrella of the program description given in the leader award. The activity description is then given to the leader to be allocated to one or more of its subs for implementation. This is not competed among the subs.</p> <p style="text-align: right;">(CIB 99-10)</p>

²⁶ The issue of joint participation might include collaborative selection of advisory committee members or USAID representation on advisory committees that are technical, not administrative, in character; selection of sub-award recipients; approval of recipient’s monitoring and evaluation plans; and/or direction or redirection of activities because of their interrelationships with other projects (see ADS 303.5.11a).

4. When should the CRSP MEs (Management Entities) be competed and how?

Competition can be a useful way to ensure that the best quality work is offered at the most reasonable price. It can provide a way to bring in new partners to a program or activity. ADS 303.5.5a states, “USAID shall encourage competition in the award of grants and cooperative agreements in order to identify and fund the best possible projects to achieve program objectives.” Current CRSP assistance agreements permit competition among the institutions carrying out program activities, but it do not require competition within a specified time period. Nonetheless, in recent years, a greater degree of competition has emerged within each CRSP in its selection of partners and research activities.

One of the exceptions to competition states that any grant or cooperative agreement (including, presumably, the new leader with associate (LWA) awards) can allow for “amendments and follow-ons” to continue without competition, but not for longer than ten years after the original award date “unless an exception is approved by the Director, Office of Procurement” (ADS 303.5.5d-1). A second exception is permitted if an award recipient “has an existing unique relationship with the cooperating country or beneficiaries” (ADS 303.5.5d-3).

These regulations suggest that competing the ME once every ten years is permissible and perhaps preferred, but that an exception could be granted in certain circumstances.

At the SPARE meeting of September 30 and October 1, 2003, the recommendation was made to BIFAD that a competition be held to determine the ME for the IPM and Sustainable Agriculture CRSPs. At a subsequent meeting of BIFAD held on October 3, 2003 BIFAD approved the following recommendation:

That USAID will “pilot” the use of the Leader with Associate (LWA) procurement mechanism for the IPM and SANREM CRSPs and will compete for the Management Entity (ME) for those two CRSPs. The criteria for selection of the ME will be completed and agreed to by the BIFAD before the competition is announced. Further, that the CRSP Guidelines will be revised with a presumption that all CRSP management entities will be re-competed in a ten-year cycle. The concept of ten-year competition will be reviewed in connection with the revision of the guidelines. The competition every ten years will be only for the ME and that consideration will be given for continuing promising research within the CRSPs.

The discussions about competition should recognize the two types of competition involved: competing the ME of the CRSP as well as competing the individual projects within each CRSP. The first is a procurement issue subject to USAID rules and procedures. The second is a function of each CRSP and should be covered in the CRSP guidelines. The authors of this report understand that BIFAD recommended that the

management function be competed and that the winning ME would then develop the total program of that CRSP by competing the research projects or components. There are many US universities that have the management capabilities to be a ME. There are probably fewer Universities that have the specific capabilities to conduct the project research both in the US and HCs. The purpose of competition is to provide the opportunity to all who chose to compete so the one with the most capability is selected. This process should also provide an opportunity for new ways of managing the CRSP to be identified.

The CRSPs were designed to support “long-term” collaborative relationships with research and implementing institutions in developing countries. It may be necessary to clarify what constitutes “long-term.” Does it refer to a time period of the larger program grant or is the institutional link between the ME and its sub-grantees? Where is the locus of the “long-term” relationship? It could be any or all of the following relationships: between the ME institution and US sub-grantees; between the ME institution and the HC institutions; between the institutions from which PIs are operating (including the ME institution) and the HC institutions; or the relationship among PIs.

IV. Enhancing CRSP Management

This section draws on the structure and content of the AMRs completed by Miller and Rubin. Despite the diversity of their research topics and the heterogeneity of management structures, many of the CRSPs exhibited similar management issues. There are five components (below) relating to the management of the CRSP programs. The following bulleted points identify some of the more important issues within each management component.

Overall, the authors found that the CRSPs have been very receptive to changing ineffective or redundant reporting and financial processes and are either in the process of streamlining their operations or are discussing which changes to make and how to make the changes operational. In some specific cases, grant documents have required much more stringent oversight or reporting than seems necessary, and those provisions should be amended. In the discussion below, some CRSPs have already taken steps to make the suggested changes when it has been within their purview to do so.

A. Operation of the CRSP Management Entities and their Programs

1. Characteristics of the Program Director (PD)

- *Experience and background*

The CRSPs are complex research programs that also require high quality management skills. To direct a CRSP program effectively and efficiently requires a person with not only excellent research credentials but also with exceptional management capability and experience. It is difficult for a person without a research background to lead such a program. As leader, the PD should be able to develop a global research vision for the overall program and to have a background that enables him or her to evaluate the

quality of the research being carried out by the researchers. At the same time, because the research is carried out in both the US and overseas, it involves scientists of different nationalities, from several disciplines and topics, and from different types of institutions. The PD must have the ability to work this range of backgrounds, with different agency and government officials, and to have the administrative and financial skills to oversee the allocation of funds to different entities in multiple countries. Given the multi-disciplinary character of most of the current CRSPs, it is less clear that the PD needs any specific technical background, so long as a significant natural or social science research background is evident.

- *Tenure*

Each Administrative Management Review (AMR) asked CRSP participants and university officials whether the PD needed to be a tenured faculty member to be an effective leader. The responses were mixed. Many responded that tenure was not necessary. The job itself does not require tenure, given its combination of needed research and management skills. Tenure does offer three important benefits: first, it signifies a level of research success; second, a senior, tenured faculty member often has experience managing research programs, and third, a tenured employee has job security and financial support from the university. Without tenure, the PD position may be supported solely by CRSP funds and carries no job security beyond the CRSP authorization period.

2. The budget and staff for the operations office of each CRSP

- *The ME budget and staff*

Current CRSP guidelines specify that the operational budget for the ME should not exceed 20 percent of the total CRSP core budget. Some have argued that there should therefore be a standard minimum amount budgeted for each CRSP, since all MEs share some standard functions. Review of the CRSPs found that neither the number of staff employed by the ME nor the amount of its budget had any correlation to a the quality of a CRSP's output, according to either a CRSP's self-assessment, its EEP (External Evaluation Panel) reports, or other measures of productivity such as numbers of publications or degree of policy impact. The size of the ME budget will often depend on the salary level of the PD (if covered in the ME budget) and other employees and will vary with institution and with the experience of the employee. An issue for further discussion is whether it is possible or desirable to develop more objective measures of the size of the ME and the amount of its budget, or to more explicitly identify what costs should be included within the management budget?

- *Management operations and outputs*

An issue not currently covered in the CRSP guidelines concerns requirements for the management of both internal and external communication systems. Some USAID officials have commented that they receive more information than they need, but not enough of what they do need. CRSPs, in response, have identified as problematic an unnecessarily high level of reporting. The growth of information and communication technologies over the past twenty years, particularly the use of electronic mail and the

World Wide Web makes many aspects of project reporting and information dissemination much easier and faster, and has in some cases helped to make the CRSPs' communication with their own researchers, with USAID, and with the other scientists much more effective. Should there be greater uniformity how the CRSPs handle their publications, websites, reporting processes as a result? While some uniformity in the processes could make reporting easier and foster greater cross-CRSP information flow, it may also reduce the innovation that is one of the strengths of the current system and it could lead to its own bureaucratic system.

3. Internal CRSP Administrative Operations

- *Tracking expenditure categories*

All CRSPs should build budgets and track expenditures according to whether expenses are spent a) in host countries, b) in the US on behalf of host countries (e.g., foreign student training), or c) in the US to support US faculty, students, and activities. Consistent definitions of the categories should be developed for use by all CRSPs. Monitoring by these categories is important since the amount of cost-share is related to the US portions of these expenses (see discussion on cost-share below).

- *Reporting leveraged funds*

All the CRSPs receive support for aspects of CRSP research or other activities from sources beyond USAID that is over and above the required cost-share. These include both real financial resources as well as in-kind support. In some cases, the USAID funding is the catalyst for funding from other agencies, foundations, or other sources. Some CRSPs track these funds clearly. In other cases, additional support above the matching levels is neither reported nor even recognized as an important contribution to the research effort. To help USAID obtain an accurate picture of the true cost of the CRSPs, these expenditures need to be reported in a uniform manner across all the CRSPS and using a uniform definition.

- *Summer salaries*

To promote scientific and institutional diversity and maintain the quality of scientists needed to fulfill CRSP goals, it is important to encourage those with academic year appointments to participate in the CRSP projects. This can be achieved by permitting the payment of one to two months of summer salaries while continuing to prohibit salary replacement.

- *Operations and Policy Manual (OPM)*

A fundamental and high priority task for all Management Entities should be the drafting and dissemination of an OPM. Ideally, the manual would be available in both hard copy and easily accessed on each CRSP's website. A standard operations and policy manual avoids many conflicts and saves time. It provides the administrative bodies with backup for making difficult decisions about badly managed or poorly performing activities. It avoids the appearance of favoritism by setting out clearly the rules for handling all procedures.

- *Processes for reducing, realigning, or terminating projects*

Projects may become unproductive for many reasons. Difficulties may emerge if the PI changes institutions, retires, or leaves a project for other reasons. Funding levels may decline to a point where they are inadequate to maintain a quality activity. In such circumstances, projects may need to be reduced, realigned, or terminated. At that point, it is necessary to have well-defined procedures in place so that the basis for making changes to the activity is clear. The process for decision-making needs to be transparent and based upon procedures that were developed in a participatory manner.

- *Transparency in CRSP operations*

Transparency is achieved through full and open communication between the ME and its PIs and researchers. Some of the CRSPs have appeared to lack transparency either within the CRSP or to those outside, resulting in some misunderstandings over the years. Recently, more open and competitive processes for CRSP research funds have increased the number of institutions and new researchers participating in the CRSPs. Nonetheless, both the MEs and the CRSP council should strive to make CRSP operations as transparent as possible to a broad range of audiences. For CRSP members, all aspects of CRSP operations should be transparent, including the decision-making process, project selection, funding, evaluation, and planning. A good electronic reporting and communication system would go a long way towards enhancing transparency. Transparency is of equal importance to those not currently participating in the CRSPs. Not only should they be able to learn the about the current activities of each CRSP, but they should also be given regular opportunities for them to compete for CRSP funding.

- *Networking*

An increasingly important role of the CRSPs is to develop and maintain global networks of trained and aspiring scientists. Sustainable research programs rely on new infusions of talent to replace those who leave and active networks help to identify new talent. When these networks are global in scope, then participating scientists can have access to colleagues anywhere who work the same areas of research and share methodologies and approaches. Networks provide information, help solve problems, and generally assist in building capabilities, knowledge, and confidence. Universities are one of only a few types of organizations that can provide such linkages over the long-term. These networks need to be nurtured, and the CRSPs provide an excellent mechanism for encouraging exactly this type of institutional networking. When and if CRSPs are closed down, it is hoped that these networks can continue, with support taken on by both the U.S. universities and the host country institutions.

4. CRSP Management Structure

- *Reducing unnecessary administrative bodies*

Although the current CRSP guidelines suggest that the each CRSP should have a multi-layered governing system composed of a Board of Directors (BOD), a Technical Committee (TC), an External Evaluation Panel (EEP) and an Administrative Committee

(AC),²⁷ several variations have emerged in recent years as CRSPs have developed structures better suiting current conditions. The functions of the BOD and TC have been merged, e.g., in the GL CRSP Program Advisory Council (PAC). Other CRSPs have added external members to the TC to gain outside counsel (BASIS); some have used their EEPs to help make programming decisions (SANREM and Peanuts). There was a universal concern that the administrative structure as originally outlined was burdensome and top heavy, and that alternative structures could fulfill the needed functions in a more effective manner. The CRSP Guidelines should be revised to reflect these new patterns.

- *Board of Directors*

The Boards of Directors are most often composed of representatives from participating institutions. There was general agreement that for many (though not all) CRSPs, there is little value added from the BOD. Despite overlapping membership, very little guidance was shared across CRSPs; serious policy issues were rarely addressed; and too often the BOD became a rubber stamp for other groups within CRSP management rather than an independent and judicious voice of reason. The role and operation of the BODs needs to be either restructured, as some CRSPs have done, to provide a meaningful role in CRSP governance or discarded.

- *Technical Committees*

There is wide variation in the membership, responsibilities, and functions of each CRSP's TC. Its size ranges from only a few PIs who represent all the researchers to a more inclusive group. Among some CRSPs, the TC includes external members who provide independent evaluations or assessments of CRSP activities. For some, the TC provides a means for PIs to share experiences and concerns and provide guidance to the PD. In other CRSPs, the TCs are involved in program development and budgeting. In some cases the TC seems to have become self-serving and ineffective. In some cases the PD may not have wanted a strong TC. A meaningful, functioning TC can be of significance and importance to the CRSP. It is the responsibility of the all CRSP governing bodies (e.g., the ME, PD, BOD, and CTO) to ensure TC effectiveness.

- *External Evaluation Panel*

Any program can benefit from an objective peer evaluation by outside subject matter experts. They should be scheduled to allow a chance for recommended changes to be implemented; when too frequently carried out, they become a burden on the researchers and administrators and interfere with the progress of the work. Review panel members should rotate on and off to avoid losing their objectivity.

Some of the CRSP university-USAID assistance agreements require yearly EEP reviews and some do not. Some of the CRSPs appointed an EEP that was continuous for the five-year agreement and provided annual evaluations. This report advocates carrying out EEP reviews only in the third and fifth years of a five-year grant or cooperative agreement. The three-year review would consist of an in-depth review visiting both US and HC sites, and the fifth year review would be a desk-top study to assess the progress

²⁷ None of the CRSPs currently have a formal and functioning AC; in most cases even a nominal list of members is absent. The consensus is that such a committee is unnecessary.

made on the previously made recommendations. . All CRSPs should have a mechanism where the PD can invite outside experts to review a difficult situation if needed and make recommendations to the PD as to how to solve the issues involved.

Currently the EEP members are identified by the CRSP and approved by USAID. The CRSP initiates and guides the evaluation. This has resulted in evaluations of varying quality and depth across the CRSPs. There may be merit in redesigning the evaluation process by bringing in an independent panel of evaluators to carry out several reviews, similar to the recent AMR process. The review panel members would be selected by USAID and conducted at USAID's request. Specific subject specialists could be brought in as needed, but one or two members with expertise in evaluation methods should carry over from one review to another to ensure for a consistent and transparent methodology.

- *Gender Integration*

USAID has recently incorporated a new approach to gender integration and analysis into its own operating procedures that have also changed how gender issues are to be addressed in new grants and cooperative agreements.²⁸ Consideration of gender is a required technical analysis in program design as well as in the monitoring and evaluation of program results.²⁹ Agreement on definitions of key concepts used in gender work is a fundamental starting point. The AMRs reveals a lack of clarity about the meaning and importance of gender among many of the PIs in most, though not all, of the CRSPs. Without a common understanding, efforts to prepare gender sensitive indicators or to build gender integration into program design and implementation are likely to have difficulties.

Two fundamental considerations that need to be addressed in a gender analysis:

First, how do existing culturally defined relationships between men and women³⁰ impact the implementation of a development intervention and influence program results?

Second, what will be the impact of the proposed intervention (or research application) on the status of women and will it help to improve gender equality in that community/institution/nation/region?

²⁸ Available at the USAID website (www.usaid.gov) in the ADS guidelines. The ADS states, "gender analysis is a required component of technical analyses done for strategic planning and development of results frameworks."

²⁹ The guidance draws heavily on definitions and concepts developed by the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD) and its Guidelines for Gender Equality and Women's Empowerment in Development Co-operation (1998) [available at www.oecd.org].

³⁰ In some societies there are third and fourth gender categories in addition to those of men and women. These are generally small populations that have little influence on most development efforts outside of the population and health sectors. For further reading, see Anne Fausto-Sterling, 1992, Myths of Gender: Biological Theories About Women and Men. New York: Basic Books, and 1993 "The Five Sexes," *The Sciences*, 33 (April-May): 20-25; Judith Lorber, 1994, Paradoxes of Gender. New Haven: Yale University Press; Unni Wikan, 1977 "Man Becomes Woman: Transsexualism in Oman as a Key to Gender Roles," *Man* 12 (2): 304-319.

It would be relatively easy to build attention to these questions into the process of program design in the CRSPs.

- *Cross-CRSP Evaluations*

Each CRSP has procedures and processes for evaluating the quality and accomplishments of its own activities as noted above in discussing the EEP process. As far as the authors are aware, there is no regular process in place to either evaluate program quality or measure program impact across the CRSPs as a whole. It would be helpful to have in place a clearer process for helping to determine when a CRSP is less productive than another or has achieved its goals and needs redesign or termination.

B. Relationship of the CRSP MEs to the Participating US Institutions

2. Financial relations

- *Cost-sharing policies*

Each and every administrative management review revealed real confusion on the part of the sub-grantee universities as to the contract requirements for cost sharing. In most cases, the universities were providing a cost share of 25 percent of the total amount of the funds they received. In fact, there are several excluded categories listed in the CRSP guidelines and in the prime grant document. While over-matching is not a problem for USAID, and was at one time a reflection of university commitment to the CRSP program, in today's financial climate it can limit universities' ability to apply for additional federal funding. Each Management Entity should take responsibility for ensuring that its procurement office spell out the cost share requirements and exclusions in the subgrants it sends to participating universities. It may even be desirable to write a short memo clarifying the requirements and provide examples of the excluded amounts. The information needs to reach both the PIs as well as the appropriate staff in the university procurement offices. Some CRSPs have begun to include clarifications in their operating manuals as well as in the annual budget reporting documentation for their PIs.

- *Fund allocations*

Once the ME receives funds from USAID it disburses project funds to the participating universities and institutions. In most cases the participating US universities then allocate to Host Countries (HC) and other US project partners. Some CRSPs use incremental budgeting where they will provide funds in two or three allocations each year. Other CRSPs will make one allocation per year. Each allocation requires new subcontracts with the universities and increases costs and time. Annual fund allocation should be practiced.

In most cases the CRSPs had developed procedures so that when they received notification from USAID, the ME alerted the participating institutions so funds could be committed. Subsequently, the new subagreements were prepared distributed and signed. In most cases this was a relatively fast and efficient process. In some other cases it was a slow and drawn out process because of real or misunderstood USAID requirements. It is critical that fund notification and transfer be conducted in an efficient and timely manner

so the research activities will not be interrupted and universities can be reimbursed for their expenditures.

- *Number of research activities, research sites and project budget size*

Each CRSP has exciting and productive projects underway, headed by capable PIs. As a result, there are always more ideas and needs than there are funds to support them, and there are often more projects planned or initiated than can be accommodated with funding at adequate levels. Comparison among the CRSPs shows that there is wide variation in the number of research activities supported by the CRSPs. Neither the number of participating researchers nor size of an individual activity budget correlates directly to the quality of the PI's research nor the activities' ability to impact production, food security, or policy. The AMR team found large variation in the attitude of the PIs as to whether it was worth the effort to participate in a CRSP for the small number of dollars involved relative to the high level of oversight and reporting requirements. PIs heading projects with fewer activities and larger budgets generally had fewer complaints and felt that they had a better chance of project success. In some CRSPs with a large number of activities the AMR team met PIs who were questioning their continued involvement and others who had decided to end their participation because of these issues. Are there objective measurements that could help to set a minimum or maximum limit to budgets for individual CRSP activities?

2. Administrative Issues

- *Reporting Requirements*

Many Principal Investigators (PIs) and reviewers of the CRSPs believe that the CRSPs and USAID have excessive reporting requirements. In some cases the reporting requirements that are required in the grant documents are excessive, but in many of the cases it is the ME rather than the grant document that has required the reporting. In some situations, AID has requested additional reports (e.g., the recent requests for reporting on biotech funding). CRSPs that have streamlined reporting have benefited by lowering administrative costs and reducing the complaints from the PIs. For most CRSPs and circumstances annual work plans and reports are sufficient.

- *Competition of CRSP activities*

The frequency and breadth of competition of the program activities varies a great deal among the CRSPs. Some CRSPs compete all of its activities every three years and is open to all universities. Other CRSPs compete on a limited basis and only among universities where the CRSP believes there is subject matter expertise. Competition of the CRSP activities every three to five years with and open competition among all university researchers permits new researchers to become involved, and improves transparency. It also provides the ME an opportunity to close down non-performing activities and to use funds more effectively.

- *Establishing regular PI meetings*

The CRSP PIs almost unanimously revealed a desire for more opportunities to encourage interaction within their own CRSPs. Membership in the CRSP community has

benefits not only for the PIs as individual scientists, but also for the CRSP. It fosters greater commitment to the CRSPs' larger goals. Recognizing the already tight time constraints under which researchers today operate, the team nonetheless believes that each CRSP should aim to bring its researchers together every year or two. The costs of such meetings might be offset by following some of the other recommendations presented elsewhere in this report for streamlining communications and evaluation procedures.

C. Relationship of the CRSPs to the Collaborating Host Country Institutions

If a primary goal of the CRSPs is to find technical solutions to development problems, then the process by which that occurs—collaborative relationships with developing country institutions—makes capacity building in both HC and the US equally important objectives. Strengthening both institutions and personnel should occur in scientific as well as administrative capacities so that institutions not only have the technical capacity to carry out current research activities, but also the administrative capacity to sustain the effort over time.

Each CRSP has established a unique relationship with its HC and US researchers and institutions. At one end is a participatory and inclusive model that places HC and US representatives on both the TC and the BOD, and involves researchers from initial planning conferences to set the research agenda through the development of the annual work plans and budgets. It passes funds through formal sub-agreements that help to improve HC institutions experience in all levels of financial administration and grant getting. At the other end is a model that develops and administers most of the research effort in the U.S., with HC involvement limited to degree training for students and the testing of new technologies overseas. No single CRSP exemplifies either of these extremes, although there has certainly been an overall move from the latter to the former as the CRSPs have matured.

Ideally even greater responsibility for designing relevant research efforts will emerge from the HC researchers, and greater responsibility for the administration of research funds will devolve unto them. Educating students, as discussed below, and supporting their receipt of graduate degrees, should continue to be an important part of CRSP functions, along with new methods of distance learning and short-term training. New information technologies can be used to develop a broad based training program and to track all types of training participants and degree students.

1. Host country Memorandum of Understanding (MOU) and sub-agreements

CRSPs have a variety of ways that MOUs and sub-agreements are implemented with host country institutions. There are some advantages to having a single exemplar document (containing critical “flow down” clauses from the prime agreement) that is used as a template for all agreements. The ME should be responsible for the development and signing of a master MOU with each HC in which the CRSP functions the project universities then use that master MOU as the basis of additional MOUs or

project subagreements. Given the heterogeneity of university state-based contracting regulations, is it possible to devise a common template to be used to implement all CRSP sub-agreements and MOUs?

2. CRSP-supported Degree programs

Training needs to be strategically planned. Each CRSP's training plan should take into account the priority areas for the scientific fields represented by their subject. More funding should support students in high priority areas; less support should go to those in lower priority areas. Other considerations for training are that programs should encourage student placement in a range of institutions with different scientific philosophies. CRSP programs can also help students to prepare for reentry to their countries. Training of students is one of the benefits that U.S. institutions receive for participating in a CRSP, so it is standard procedure to have student stipends as part of an individual project budget. It may or may not be the best or most efficient way to attract and place HC students. Consideration should be given to having at least a portion of the training funds held at the ME level so the training priorities are better met and students are placed in the most appropriate institution. Each CRSP should have both a training plan and an up-to-date alumni roster that includes address, occupation, and responsibilities. Such records could be used to determine new areas for intervention and support in human resource development. It would also provide a helpful illustration of one of the most valuable results of the CRSP programs. CRSP alumni can also play an important role in communicating HC concerns to USAID missions and other donor agencies in HCs.

3. Institutional capacity building

Capacity building is much more than student, scientist and participant training. It includes ways to assist HC and US institutions in learning how to administer funds and programs and how decisions and priorities are made and implemented. Procedures should be developed so HC institutions can claim and receive overhead just as it is expected for US institutions. AID needs to recognize this as an important art of HC development and provide for funding to support such development. HC participation on CRSP advisory and planning committees should be a requirement.

D. Relationship between the CRSPs and USAID

The CRSPs grew out of USAID and university cooperation to create a vehicle for accessing university research expertise to help USAID solve agricultural development problems. The majority of USAID support to agricultural research passes through the CRSPs and the CGIAR network. The CRSPs receive the largest share of their funding from USAID. As a result, the CRSPs and their function are strongly influenced by USAID policies, procedures, and actions. If the management and function of the CRSPs is to be made more effective there are a number of issues that USAID should change.

1. USAID assistance agreement procedures

- *Contracts*

The USAID operating agreement issued to MEs for a specific CRSP are often very different in terms of the requirements such as reporting, fund allocation discretion and procedures important to the productivity of research programs. Since the CRSPs operate under a common set of guidelines it would seem that USAID should have a common agreement format for all CRSPs. If the agreements were uniform in their requirements it would greatly simplify CRSP management.

The USAID-University operating agreement should not only have similar provisions for all of the CRSPs but they should require a minimum of reporting and provide budget flexibility. Any agreements beyond that should be outlined in the CRSP guidelines and specifics, if additional details are needed be developed and agreed to between the CTO and ME.

- *Termination Of A CRSP and/or its ME*

These might include; procurement requirements, the lack of effectiveness of all or parts of the advisory system, lack of research productivity, lack of me effectiveness, as well as others.

2. CRSP funding

- *Yearly fund allocation receipt*

The irregular flow and inconsistent amounts of funding from USAID is, without doubt, the source of greatest stress and difficulty for CRSP management. From year to year, allocations from USAID have arrived at different times during the calendar year and with no relationship to the dates of the agreements or the research cycles. While in some cases the delays originate with Congress, at other times the delays either originate or are exacerbated by the USAID procurement process. A long-term research program, especially one seeking to build and strengthen the research and institutional capacity, depends upon both a secure minimum level of funding as well as regularity in its provision. CRSPs with financial years that begin after September experience fewer delays in funding allocations from USAID. Should all CRSPs have a financial year beginning between September 1 and September 30? What would the cost be to USAID to effect such a change? What is the cost (in time lost and additional transactions) to USAID, universities, and researchers in not doing so?

- *Yearly funding levels for individual CRSPs*

The setting of the levels of annual funding for each CRSP is poorly understood by CRSP participants and is relatively opaque even to the CTOs. The overall budget is suggested in the Congressional appropriation and currently equals about \$22 million and is divided among the nine CRSPs. In recent years, two different principles for setting annual CRSP funding levels have been in tension with each other: equity and merit. One principle calls for moving all CRSPs towards a median level of funding; another calls for setting levels to reward excellent performance and penalize poor performance. There does not seem to be any indication from AID that any of the areas of CRSP research are more important than any other, yet it is unlikely that all areas are of equal importance.

USAID in cooperation with SPARE and BIFAD should develop a more objective means for determining the initial allocation for each CRSP and for yearly adjustments.

- *Tracking Pipeline Funds*

Monitoring the flow and use of funds is important from several standpoints. For principal investigators (PIs) it means knowing what resources they have to carry out the project. For the ME it means being able to measure how effectively individual projects are moving toward their objectives and whether there are carry-over funds. To USAID, pipeline levels indicate whether the programs are proceeding as planned or if there appear to be unexpended funds that can be pulled back to fund other activities. Accurate measures of uncommitted funds are therefore very important. The current system only allows the ME and USAID to track what funds have been vouchered and what funds have been paid out. There is no record of encumbered or committed funds. A possible system to improve the accuracy of available information would be to have subcontracting institutions report accruals at the same time they submit vouchers for payment. This would provide a better indication of uncommitted funds and funds in the pipeline.

A second problem is that USAID was not even using current information in its own system. From the information provided to the team during their reviews, it was found that the expenditure records held by USAID were not current. The USAID records reported funding levels disbursed as substantially less than what the CRSP had vouchered and already been paid for. USAID needs to develop and put in place a more accurate system to track the flow of funding to the CRSPs. USAID should not immediately assume that the CRSP MEs are at fault when reports of large pipelines are made.

- *Year End Funding*

Near the end of each fiscal year there is often the opportunity to use unexpended funds to enhance specific activities. Few year-end funds have been allocated to the CRSPs. This is a funding mechanism that should be encouraged and procedures to this end should be developed.

3. Role And Function Of The Cognizant Technical Officer (CTO)

The general responsibilities of CTOs vis-a-vis implementing partners are spelled out by USAID regulations, but the specific responsibilities surrounding management of CRSPs are not addressed in the current CRSP guidelines. In general, the CTOs liaise between the CRSP PD and USAID; they are advocates for the CRSPs within USAID, and are the ones responsible for working with procurement officers or other USAID staff members on specific CRSP issues. They also provide a “USAID perspective” on general management issues to the CRSP. Until recently, the CTOs seem to have only a minimal role in the development and negotiations for any new agreements or continuations of the specific CRSP grants and/or cooperative agreements. Interpretation of the “USAID perspective” appears to be left to an individual CTOs and his or her knowledge. There does not seem to be any overall coordination and guidance from USAID for the CTOs or overall CRSP operation. The role of the CTOs in liaison with the missions seems to vary as to the interest of the individual CTO.

A number of observations can be made from the AMRs and from what the authors heard during those reviews. That each CTO could be responsible for more than one CRSP, currently two CTOs are responsible for two CRSPs. That there is a need for greater coordination among the CTOs on USIAD policy, expectations and requirements for the CRSPs, too often-different CTOs seem to be providing conflicting interpretations of USAID requirements. With four CRSPs reporting to EGAT/NRM and five to EGAT/AFS it is very important that a mechanism be developed to provide coordination and common perspectives on CRSP management.

One recurring concern voiced during the AMR reviews is that there is not a single CRSP point of contact that people can go to for USAID guidance on the CRSPs. Establishment of such a point of contact should be given serious consideration. It is very possible that if a function were established that the number of CTOs required could be reduced from the current seven to four or five with members coming from both EGAT/AFS and EGAT/NRM and overall supervision provided jointly by the Chiefs of the two offices.

4. How can USAID missions' best access CRSP and other university expertise?

CRSPs are USAID programs and should offer a ready mechanism for missions to provide funds for CRSP or CRSP like programs. For a number of reasons mission buy-ins have had a mixed success within the CRSPs. With BIFAD recommending a trial use of the Leader Associate Program a way may have been found to increase mission involvement in the CRSPs. This mechanism may also increase the role of universities in development programs.

Whatever mechanism is adopted or developed to encourage mission buy-ins there does need to be some operational detail uniformity across the CRSPs. Examples are whether or not buy-ins are considered core funds and therefore could be assessed an ME management fee and if a management fee is assessed it should be uniform. Another example is how will the funds be passed to the operational university or universities and what reporting system will be used.

E. Relationship among the CRSPs

The CRSPs have a number of unique features that have provided the framework for their success. That they are successful programs is attested to by numerous reviews that have found that they contribute significantly to both international and national agricultural productivity and human capacity development.³¹ Three of the successes contributing features are that they are research programs, they are long term and the organizational guidelines provide a great deal of management flexibility. It is very important that in any attempts to improve the effectiveness of the CRSPs that these characteristics not be diminished.

³¹ E.g., Hogan et al 1986, Swindale et al 1995, Miller and Rubin 2001, Sherper 2003.

Since each CRSP is dealing with a different research area and in some cases different countries and regions of the world they often have taken or evolved different ways of identifying and selecting the research topics and participants, of funding, and monitoring the research activities and of managing the overall research activities and how they are carried out and reported. Some of the procedures and processes developed and used have been more successful than others. Often because of the press of time or the limitation of funds the CRSPs have not benefited as much as they could by sharing information and approaches to and solving of problems.

- *CRSP Council*

The CRSP Council was formed in late 1992 to provide “a vehicle for collaboration among the functioning [at that time eight] CRSPs.”³² According to its by-laws, the CRSP council has several functions:

- ▶ To serve relevant USAID offices on CRSP matters
- ▶ To facilitate joint inter-CRSP programs
- ▶ To advocate for AID research programs to provide assistance
- ▶ To advocate for long-term collaborative research as an effective development tool
- ▶ To provide gender educational support to donor and clientele groups that can benefit from CRSP generated knowledge and technologies
- ▶ To facilitate extramural funding for collaborative research, and
- ▶ To participate in coordinating USAID’s relationship with IARCs and the CGIAR.³³

Its official membership list includes not only CRSP PDs, but also the chairpersons of each CRSPs BOD and TC, with the PDs forming the Council Steering Committee. In practice, the Steering Committee forms the active core of the Council and could easily be reconstituted as the Council in its entirety without any negative effect.

Issues taken up by the Council include the funding levels received from USAID and the timing of those allocations, as well as the scheduling and consequences of the recent activities carried out through SPARE and BIFAD such as the sub-sector reviews, CRSP reviews, proposals on training, and various USAID reorganizations and assistance agreements. The council and PDs are to be commended for enacting several of the recommendations made in the recent AMRs, particularly holding a meeting of the CRSP financial staff to share solutions to common problems. Such conversations on the topics discussed in this report, among others, could result in better overall management within the CRSPs. Such discussions should be a regular activity of the council and budgeted for within each CRSP.

- *Inter-CRSP activities and communications*

³² CRSP Council Bylaws, page 2 (1993).

³³ CRSP Council Bylaws, 1993.

USAID together with each CRSP (through its Board of Directors) should encourage greater communication and interaction across CRSPs. Some CRSPs are sharing approaches (such as the use of common Internet and Web based reporting systems, harmonizing financial management systems, and discussing policy-oriented briefs and newsletters). Some CRPS have also developed joint activities, such as the InterCRSP projects in West Africa, Ethiopia, and Mozambique. These efforts to work cooperatively are an improvement over more competitive relationships that sometimes prevailed in the past.