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OFFICE OF AGRICULTURE

BACKGROUND

The major problem of the world's less developed countries (LDCs) is poverty and its product, hunger. For every eight people on earth, one does not get enough to eat. About 15 million people die of hunger or hunger-related diseases each year. In recent years, the low-income countries as a whole have achieved significant gains in their own food production. However, during that time the gap between food supply and food demand has been steadily widening due to population growth and rising income disparities. This problem is most acute in the less developed countries of the world where approximately two-thirds of the earth's malnourished people live.

In April 1982, the U.S. Department of Agriculture reported that low levels of food production and population factors have together created high food import needs among low income countries and that these needs will continue to rise. The Food and Agriculture Organization and the World Health Organization estimate that roughly 52 million tons of basic food commodity imports are currently needed annually by low income countries to raise per capita intake of staples to recommended nutritional minimums. The USDA report further states that in 1982-83 the low income countries would need to import 32 million tons to maintain current per capita food intake levels. Production shortfalls in developing countries, especially Africa, have tightened the world food balance. Moreover, it appears unfeasible to expect that the United States and the few other surplus food producing nations will be able to produce or maintain food reserves into the 21st Century, large enough to meet food disaster situations and expected LDC shortfalls. It is equally important to realize that, in spite of technical breakthroughs, no new important surplus food producing nations have appeared to meet the expected needs during the last two decades while the number of countries importing food has steadily increased.

Food production statistics tell only part of the story. By the year 2000, nearly half-a-billion more people will have entered the labor force in the LDCs. As they do, if present trends are not reversed, they can face massive unemployment and under-employment. Much of this population increase will occur in the rural areas, where unemployment rates already range seasonally from 25% to 60%. Given the steadily improving but still inadequate availability of services and social infrastructure in the countryside, and the fact that rural income levels average only one-third to one-eighth those of urban areas, it is hardly surprising that virtually all LDCs have been experiencing large-scale migration from country to city. Because this route often continues across national borders, international migration and refugee problems are becoming increasingly commonplace in many parts of the globe.

In short, the lives of millions of people are now circumscribed by a series of interlocking problems which characterize the rural areas of the LDCs -- malnutrition, low agricultural productivity, antiquated farming methods, low incomes, lack of jobs, large families, and deteriorating natural resources. Serious hard-nosed decisions must be made by LDCs and developed nations alike in order to better shape the future for rural and urban poor worldwide. First, there will be a continuing need to provide emergency and

subsidized food to the poorest of the poor in LDCs. Secondly, the U.S. and other donors must increasingly press the developing countries to improve their rural sector policies to permit more rapid progress in attaining food security. Third, their Agricultural Sector agencies must become more proficient in adapting science and technology to meet low income producer needs. Fourth, serious strategies are imperative to provide large numbers of rural and low income urban employment, at least cost per job created, to generate expanded national demand for food. Lastly, non-food production must be also increased to meet growing demand for vegetables, fibers, fruit, medicinals, spices, etc., as well as contribute toward increased employment demand.

THE ROLE OF THE OFFICE OF AGRICULTURE

The Office of Agriculture (S&T/AGR) strategy is based on the fact that the elimination of hunger requires increasing food and agricultural employment production, and purchasing power; that developing a viable small-scale agricultural sector is the AID orientation most likely to accomplish these goals, and that AID's most productive role will be in assisting LDCs develop those human, institutional, and technological resources required to generate and sustain a dynamic small-scale agricultural production and marketing system. This approach is consistent with and supports the draft Agency Policy Paper on Agriculture as well as various statements made by the TPCA and the Agricultural Sector Council.

Within this overall framework, we have a definite role.

This Office's primary functions are to generate and facilitate the exchange of improved methodologies, information, and knowledge, using science and technology in Agriculture. Its major responsibility is to provide technical, scientific, methodological and informational support to Missions (hereafter referred to as USAIDs), regional bureaus and to LDC national institutions that have the main responsibility for food production and employment working directly with small producers. S&T/AGR, as funds permit, and priority problems are identified, will explore new ideas and technologies which can form the basis of future development activities. At present, in budgetary terms, this latter function is a relatively small proportion of the total. However, this has always been a legitimate and important Central Bureau function and will continue.

Within AID, human and institutional resource development is largely the responsibility of our field Missions. Therefore, S&T/AGR must define its role clearly. S&T/AGR cannot work at the "retail" level, that is, directly with the millions of small farmers that must ultimately benefit. This office must deal with, and work through Regional Bureaus, individual USAIDs, LDC institutions and other assistance donors. This reality conditions the manner in which this Office must structure its own activities and program priorities.

What S&T/AGR can and must do is to work at the "wholesale" level; first, using the extensive expertise and capacity of the United States in science and technology to develop more effective agricultural methods, techniques and production systems to solve the critical problems that cut across

national boundaries among developing countries. Second, we must help to expand LDC, international networks and linkages through which a constant flow of new problem solutions and information can be transmitted to national institutions and their technical staff that work with the intended beneficiaries.

The institutional need of greatest relevance to S&T/AGR is the "ability to provide what the client needs" -- from on-shelf technology by calling upon the U.S. and international networks for help or through innovative efforts of our own. The most frequent needs are for substantive research and technical assistance in particular program areas. Other needs relate primarily to managerial and administrative constraints -- matters which remain a major concern and responsibility of USAIDS and national institutions themselves. The strategy presented here emphasizes substantive needs, but corrects, to a certain extent, the previous neglect of the other areas.

S&T/AGR discharges its responsibilities through four major mechanisms:

1. It funds the U.S. share of the International Agriculture Centers and monitors their programs.

2. It maintains, develops and monitors centrally funded research through development contracts and grants.

3. It supports collaborative research grants. These fall largely within the Collaborative Research Support Programs (CRSPs), in which the Title XII Institutions, comprising primarily U.S. land-grant colleges and universities, contribute at least 25% of total costs. These CRSP programs focus on research for easing or eliminating major constraints in selected elements of LDC rural development systems.

4. It utilizes both contracts and cooperative agreements to maintain centers of technical competence to serve AID's Regional Bureaus and USAIDs.

These represent an array of expertise needed to undertake high priority tasks which usually is unavailable in the LDCs or USAIDs and most economically provided by this central office.

THE ONGOING RESEARCH AND TECHNICAL ASSISTANCE PROGRAM

The Office of Agriculture has one of the largest and most extensive research and development programs in the Agency. The oldest project, begun under the Technical Assistance Bureau (plant and seed materials) dates back to 1955. Projects have continued to be added, modified or deleted in response to changes in Agency policy and LDC needs or when they attained their intended goals. In both USAIDs and LDCs, a number of important areas of technical assistance are continuously required as they are in the United States. In these areas, providing technical support and information to USAIDs and LDCs is their primary goal while other projects focus on the generation of new knowledge and assisting in developing Agency-wide capacity to better use new scientific and technical breakthroughs in planning assistance programs.

At the present time, this office provides 25% of the total donor contribution to the 13 International Research Centers of the Consultative Group on International Agricultural Research (CGIAR). In addition, we contribute to the International Fertilizer Development Center (IFDC), the International Center for Living Aquatic Resources Management (ICLARM) and to the International Center for Insect Physiology and Ecology (ICIPE), as well as the Asian Vegetable Research and Development Center (AVRDC). In FY 1982 there are also six operational Collaborative Research Support Projects with one additional CRSP in the design state. We are funding other research and technical assistance projects in support of the AID agricultural program worldwide through over 30 universities, the USDA and USDI. In FY 1984, the total research and technical assistance program financed by S&T/AGR will be conducted in over 50 countries involving field studies by over 500 scientists and more than 2,000 LDC research collaborators.

Through this "system", research is being carried out and technical assistance provided on specific problems affecting most of the major food commodities consumed in the developing world -- rice, wheat, corn, sorghum, pulses, potatoes, cassava, barley and millet, ruminants, non-rumnants as well as fish. This program also studies and provides assistance Agency-wide on weed problems, storage of grain, fruits and vegetables, control of rats and birds that destroy large quantities of food, insect and disease problems and, in addition, conducts production and economic studies of markets, product prices, input costs as well as of ruminant and other animals. Too, in FY 1984, research will be continued on alternative agricultural policy options; the economics, design and management of irrigation and water systems; soils; biological nitrogen fixation; tissue culture; roots and tubers as well as mixed livestock and crop farming systems.

As USAIDs have reduced their own technical staff during the past ten years, they and developing countries have increasingly called on S&T/Agriculture to supply the senior technical expertise needed to solve problems in science and technology adaptation and transfer, as well as in the design, implementation and evaluation of USAID projects and programs. S&T/AGR, consequently, has technical assistance projects with U.S. universities, USDA, NOAA and TVA to provide these technical services. In addition, our direct hire senior staff spends considerable time with the Regional Bureaus and field Missions providing the professional input required for new and adaptive projects needed to improve national institutions that serve the small farmer. Because our staff and consultants work worldwide, we are frequently the only technical memory of the Agency, spanning all AID-assisted field regions. Consequently, our staff and technical assistance projects provide the inter-bureau and inter-hemispheric linkage between research and technology transfer in most of the agricultural disciplines used by the Agency.

In FY 1982, technical assistance was provided by our direct hire and consultant staff for project design, operation and evaluation Agency-wide on grains; pulses, livestock; pesticide use and pest management; soils; irrigation; fresh water and marine fisheries; seed industry development; plant and seed materials required for testing and research; pre- and post-harvest loss prevention; soil classification and water control.

From April 1981 to March 1982, 7,918 person-days of technical expertise were provided at the request of USAIDs and LDCs for project design and development, evaluation and the solution of specific technical problems. Of this, 1,434 days were provided by staff assigned to S&T/AGR and 6,484 days were provided by S&T/AGR through its arrangements with other U.S. agencies and institutions. The largest user of S&T/AGR's technical expertise in this past year was the Latin American Bureau (3,258 days), followed by Africa (2,024 days), Asia (1,931) and the Near East Bureau (705). This denotes a change since in FY 1980, Latin America was first, Asia second and Africa third.

Training, in addition to technical assistance, is a major element of our program. Short courses in commodity research methods, integrated pest and pesticides management, crop nutrient utilization, aquaculture, commercial seed, post harvest food loss prevention, biological nitrogen fixation, and soil management and the CGIAR network have been and will continue to be held in International Centers and LDCs as well as in the U.S. In addition, workshops to coordinate programs operating in various countries in different parts of the world are held annually to improve the technical quality and effectiveness of national, regional and S&T/AGR projects. Still another dimension of these programs is graduate, as well as on-the-job training for LDC technicians which frequently occurs when our technicians work with Bureau and USAID agriculturists, anthropologists and others in project design and implementation or while conducting International Center, CRSP or other S&T/AGR research. These training programs are vital and will continue. In 1982 over 1,582 LDC technicians received training in formal courses or on the job either in country, in another LDC or in the U.S. partly or completely under S&T/AGR funded programs.

The ways in which science and technology can contribute to problem solving at the small farm level must be continually recognized and, at the same time, strengthened. National institutions -- research, extension, credit, marketing and agroindustry -- all play important roles in this effort. S&T/AGR's own program can, in turn, help these institutions, through and collaborating with USAIDs, regional bureaus or other S&T offices.

Because of the budgetary constraints on our ongoing R&D program, we plan to undertake a very limited number of new lines of action in FY 1984. We continue to be concerned with bringing about better integration, as well as strengthening the linkages and feedback of existing assistance at the national and international levels. Much is already known and available to be put into practice today. We hope to provide leadership in this Agency to this process.

LONG RANGE STRATEGY

In designing a strategy that would best enable this office to meet its responsibilities -- that is, to provide timely and relevant technical support, while simultaneously keeping on top of developments with potential merit for future USAID or LDC undertakings -- S&T/AGR will continue to evolve its scientific and technical assistance in accordance with three principal guidelines:

I. Maintain a strong dual emphasis on improving agricultural production, employment expansion and farm cash income generation, through quality multizone-oriented research and technical assistance.

II. Continue integrating Program Activities, including priority level Policy Improvement, Technology Development, Training, Research and Information Dissemination in collaboration with regional bureaus and USAIDs.

III. Improve the networking of S&T/AGR research and technical assistance efforts at worldwide, regional and country levels in support of Agency needs.

In the aggregate, this strategy will continue to be targeted toward enhancing the well-being of large numbers of people in the rural sector. Further adjustments in program operations will continue to be discussed in the Agricultural Sector Council and changes made in collaboration with Regional Bureaus and USAIDs in order to further increase program relevance to field problems.

Both the strategic emphases and new program activities described below are consistent with (indeed, are partly in response to) Mission interests as presented in their CDSS submissions amd Bureau development assistance strategies.

I. Maintain a Strong Dual Emphasis on Agricultural Production and Income Generation

Both the ongoing research and technical assistance programs and any new activities to be initiated in FY 1984, are based upon the Agency's Agricultural Policy concern for improving national policies and simultaneously raising agricultural output and rural incomes. This central focus will continue to be stressed in view of the urgent need to intensify LDC national capacity to find and carry out programs to increase production as new lands become more scarce, as well as responding to expanding LDC domestic and export markets in order to increase production incentives, and to create employment opportunities. In this process we are and will continue to work closely with other Directorates of the S&T Bureau as well as with other Agency bureaus, USAIDs and other donor agencies.

Historically, S&T/AGR projects have encompassed a wide variety of important, diverse and often fairly localized problems. The range of local needs, all pressing and all falling within AID's broad geographic scope, make this approach understandable and tempting. However, in light of the increasingly tight funding and staff resources of S&T/AGR and the Agency as a whole, a sharpening of relevance and a stronger concentration in high priority areas are clearly necessary while we downgrade and gradually phase out or transfer strictly local or one region problems to the appropriate bureau or another donor agency. We are thus endeavoring to restrict S&T/AGR programs, both conceptually and operationally, to concentrate on those activities with the highest potential returns to large numbers of USAIDs and LDCs, which also can most effectively benefit the largest number of people in rural areas.

In FY 1982, this office provided terminal funding for four projects. In FY 1983 we now propose to complete the funding of six additional projects. In FY 1984, as a minimum, we expect to complete the funding of two additional projects because of normal completion of activities, their transfer to regional bureaus or low bureau/USAID priority and funding limitations.

Assuming that a reasonable budget level is maintained for this office, by the end of FY 1984, S&T/AGR will increase its capacity to support USAIDs and LDCs through new projects in the following areas:

1. Soil Production Improvement.

It is essential that developing countries continue to retain the productive capacity of their soil base if they are to continue to increase production on cultivable lands. In support of this need, we propose to increase our technical assistance backstopping and training capacity in:

a. Erosion and Drainage.

Thousands of hectares of land in developing countries are being downgraded annually or returned to brushlands by poor soil management. Erosion and drainage constitute two of the most important factors in this process. Knowledge is available and methods known to slow down and frequently reverse this disastrous process. S&T/AGR proppses to initiate a new project in FY 1984 to provide technical assistance probably through the USDA Soil Conservation Service to USAIDs and LDCs in the evaluation of erosion and drainage problems, assist in designing activities in these disciplines in area development and production projects, assist in training national technicians improved methods of solving these very urgent and serious problems and provide evaluation expertise to AID field projects worldwide.

b. Soil Fertility Support

As fertilizer materials increase in value and as new deficiencies are identified in LDCs, the need for appropriate systems for assisting farmers to select the most profit generating fertilizers and applying them correctly is becoming ever more important factors in the food production equation. In FY 1984, we propose to initiate a Soil Fertility Support project to assist USAIDs and LDCs to upgrade the technical capability and capacity of LDC soil fertility organization in order that they can analyze and make more effective recommendations to larger numbers of small farmers. Where adequate facilities do not exist, this activity will assist USAIDs and LDCs in designing facilities, provide training and design or evaluate projects in this area. Where facilities exist, this project's advisors would update the analytical methods, introduce new cost sensitive plant fertilizer correlation systems and monitor the analytical results being generated. Close linkage will be developed between this activity and IFDC in Alabama.

c. Agricultural Data Management Systems

In order to strengthen the relevance and timliness of decisions by national policy makers as well as other agricultural institutions and the private sector -- including the small farmer -- improvement of data bases and essential production and market statistics collected by existing national systems is needed. Technologies for the improvement of national data management systems as well as for improvement and the collection storage, processing analysis and dissimination of key baseline, production and socio-economic data. However, these methods are not presently used in most developing countries. In FY 1984, a new technical assistance project -- originally proposed for FY 1983 but not implemented because of budgetary limitations -- is proposed. This activity will assist USAIDs and national governments to analyze existing systems, develop appropriate USAID projects, introduce new methods, and enhance the quality and appropriateness of production, marketing, and other statistics as well as baseline data on climate, soils, production alternative, etc.

d. Increased Food Production

In world food shortages, the greatest impact on developing country economies occurs from calorie shortages and from protein limitations for maintaining the proper calorie/protein ratio from grain legumes and meat products in human diets. The calorie/protein ratio is most critical in children, as this is where the debilitating nutritional disease call Kwoshiorhar, among others, is observed. The Office of Agriculture proposes to strengthen its technical assistance and response capability in the areas of root and tuber production, soybean production development and small farm mixed crop/livestock (poultry, swine, goats, rabbits, etc.) farming systems research in order to meet increasing demand for assistance in these areas. The new thrust for increasing technical assistance backstopping and training capacity will be made through the following projects.

2. Root and Tuber Technical Assistance

One-third of the population of tropical developing countries depend on cassava, sweet potatoes, potatoes, yams, and aroids or a staple food and 85% of that production is consumed directly by the producer. Cassava is the major root crop (41%) utilized by developing countries but an additional 41% of the total production comes from sweet potatoes, aroids, and yams. There is considerable research on root and tubers which is not adequately employed in developing countries. S&T/AGR proposes to initiate a new technical assistance project in FY 1984 to assist LDCs to find solutions to major constraints inhibiting mass production of the major root and tuber crops.

3. International Soybean Development Center

Because of increased demand for soybean oil as a cooking oil, increased soy protein for small farm poultry feeds and for soybeans as a direct human food, demand continues to outrace production in developing countries. There is increasing interest in using the improved production technologies by LDCs in order to meet existing and expanding national and international demand. As an outgrowth of the S&T INTSOY project, this technical assistance project will be designed to disseminate genetic materials, information, production technology, and utilization technology to developing countries on the production and use of soybean varieties for tropical environments. It will also assist USAIDs in evaluating national production systems and developing appropriate A.I.D. interventions.

4. Mixed Livestock/Crop Systems Research

In the last three years, farming systems research (FSR) has been identified as a major positive intermediate intervention between the work of the agricultural research stations, agricultural extension services and the small farmer for identifying, adapting and testing known technology for small farm use and for demonstrating the practicability of new systems for application in broader gauged national outreach programs. As all crop FSR programs depend on cropping systems research as a source of information fuel, the same is true for testing information where small farmers are involved in production of livestock and crops as a mixed system. Integrated crop/ruminant farming is the predominant small farm production mode of agriculture in 62% of the countries where AID operates. That figure does not include swine, poultry and other small animals which are ubiquitous to subsistence agriculture. This project would direct applied research toward developing methodologies and testing new approaches to livestock/cropping systems that will maximize crop/meat production at the small farm level. The methods and technologies developed from the research will be folded into the technical assistance FSR projects initiated by S&T/AGR in FY 1982 and transmitted to national technicians through workshops and TDYs under the latter project.

II. Strengthening S&T/AGR's Program Focus

We cannot do everything, in conceptual terms. We cannot be everywhere, in operational terms! First, the number of countries in which S&T/AGR will conduct research will be gradually reshaped, and new projects will, as they evolve, increasingly be concentrated in groups of countries to address critical problems through the common theme approach. Moreover, because institution-building is fundamentally a national endeavor, we will continue to insist that new central research and technical assistance problem-solving activities continue and, where possible, increasingly complement ongoing USAID programs in this area.

Second, we will direct our efforts toward assisting particular types of institutions, specifically, those that are engaged in various facets of food production, income generation and job creation. Within this thrust, priority will be given to (a) working with USAIDs and those institutions, public and private, which comprise the technology systems, i.e., policy making agencies, research, extension, credit input supply (e.g., fertilizer, seed, pesticide) and interface with market and agroindustry; (b) We will be coordinating S&T/AGR technology transfer efforts with other S&T Directorates toward supporting commercial activities and the public LDC institutions assisted by USAIDs and LDCs to assure mutually-reinforcing effects among the private sector's production of agricultural inputs (e.g., expanding private sector seed industries, fertilizer production and mixing, and the use of nitrogen fixing bacteria to reduce chemical fertilizer needs), and the production sector. (c) A third set of institutions critical to the food-income system are those dealing with sector analysis and policy formulation. In FY 1984, in conjunction with S&T/AGR's new projects to be initiated in FY 1983 in agricultural economics, we will continue our linkages with those institutions involved in improving the economic effects of alternative public policy options, the economics of food security, and other aspects of national planning which involve the rural sector.

Of necessity, this concentration of resources and program focus leaves an important area less well-attended than we would like. This is in the very important field of Agricultural Diversification.

We recognize that in order to expand fully the production base of the rural sector, large numbers of additional jobs must be created annually to match population growth. In many countries, due to inflation and the greatly increased cost of fossil fuels, additional foreign exchange generation is also becoming an increasing imperative. These goals cannot be fully realized by focusing on food production alone. In part, rural/urban migration, off-farm employment and agroforestry are answers. However, major impacts on the employment situation will also require increased attention to the production of non-food crops such as oilseed, flavorings, latex, medicinals, plant-based pesticides, as well as fruits and beverages. Many LDCs have significant comparative advantages for growing such products within their tropical, semi-temperate and low rainfall conditions. Many of these products can generate high levels of income and employment per area, and good world markets are available. In our farming systems work we will give some attention to some of these products, using on-shelf production methods wherever possible. In 1984 we will also begin an initiative on roots and tubers. However, this does not constitute an aggressive and sharply focussed initiative as is needed. AID-assisted countries must increase their efforts in this area, however, most do not have the technical capacity to expand this option as rapidly as they must to meet national goals. We feel further non-food tropical and semi-arid crop research and technical assistance is justified and would have a major impact on the rural sector of many developing countries. It is an area in which our younger foreign service officer lacks in-depth experience and, consequently, the Agency is not providing the level of commitment required.

III. Improving the Integration of S&T/AGR Research and Technical Assistance Activities

S&T/AGR occupies a specific position in a complex worldwide agricultural development network. A significant component of that network is the AID agricultural development system, including the Missions, their contractors, their institutional clients, the international agricultural research centers as well as the S&T/AGR contractors and grantees.

The FY 1984 S&T/AGR strategy aims to assist in the integration of activities of all AID participants involved, so that, to the extent tha we can help, the network actually performs increasingly as a system and develops the synergism one should expect of such a system. Initially, accomplishing this integration will necessitate much greater dialogue and high level leadership in the Agency and further improving the style of operation as well as strengthening the Agency's operations in this regard.

S&T/AGR is also handicapped by being removed from actual operational field operations. We are at one end of a chain of intermediate players, and the farmer is at the other end. Thus, follow-through is difficult for many activities and requires a more integrated A.I.D. concern involving our office, regional bureaus and USAIDs. If A.I.D. is to successfully shorten the effective distance between centrally funded as well as bureau funded projects and their end-use, we will have to increase our working level contact and collaboration as well as develop new modes of action both within AID/W and between AID/W and the field, in order to speed the rate at which research results and technical assistance activities are put to use. We perceive this problem as receiving too little Agency-wide attention at this time.

Our activities in the International Centers, CRSPs, policy areas, production and resource development working through farming systems and the commercial sector, should help assure that the results of S&T/AGR-funded activities will be integrated with available national and international technology, and be disseminated promptly and energetically. This aim will be further emphasized as we promote greater coordination between CGIAR, CRSPs and other research and technical assistance funded by this office in the future.

During FY 1984, this office plans to continue to strengthen our operational relationships with the Bureau's Offices of Nutrition, Health and Population, Multi-Sectoral Development, Education, Forestry, Environment and Natural Resources. and International Traning. We are now carrying out the development of two projects -- Rural Marketing Systems and Integrated Systems for Small Farmers -- through joint office review, participation and implementation with S&T/MSD. This permits us to jointly integrate technical, social and economic concerns in these two project areas, in a manner not previously possible. It does not, however, attack a similar major problem that continues still largely unaddressed among AID contractors. We propose to initiate periodic meetings with groups of our contractors to further progress made in this area in FY 1981 and FY 1982. We welcome the opportunity to further this process with other officers of the S&T Bureau and other elements of the Agency.

Improvement of the Office of Agriculture's Technical Capacity

In order to respond to Bureau and USAID needs as well as manage more adequately our ongoing portfolio, this office will be further strengthening our technical staff as follows:

1. To backstop the CGIAR program we intend to increase our staff from one person at present to three senior level agriculturalists having extensive research and managerial experience.

2. Our agronomic staff will be increased from two to four people by adding an IPA advisor for roots and tubers and one additional foreign service officer to manage our pulse program.

3. We intend to expand our farming systems/livestock group from one FS officer and one RSSA to one FS officer and two new officers (IPAs) with experience in livestock farming systems and cropping systems plus part time of a farming systems experienced anthropologist/extension advisor from the S&T/Multi-Sector office.

4. An IPA has recently been added to work on post harvest pest management problems and a second officer will be added to our pest management staff to work with our new IPA and our part time RSSA Advisor in this subject area.

5. We will be adding a second water management officer to the one on board at present to backstop our large effort in this area.

6. Two new agricultural economists will be added to our full time staff. One will work in policy planning and the other in farming systems economics. The Division Chief position will be filled in August 1982 by an experienced senior AID field officer.

7. We plan to add a senior fisheries officer to our staff to manage this growing portfolio.

8. We have requested an IPA position in soil conservation to cover this important area.

We expect the above strengthening of our staff to increase our ability to manage projects and provide quality scientific and technical support to USAIDs and regional bureaus.

Office of Agriculture

New Projects in FY 1984

($ thousands)

		FY 1984	FY 1985	FY 1986	FY 1987	FY 1988
Renewable Natural Resources						
4129	Soil Fertility Testing Prog.	500	500	600	600	600
4130	Degradation of Productivity, Erosion and Drainage	700	900	1,000	1,000	1,000
Agricultural Production Division						
4132	Int'l Soybean Center T.A.	600	700	800	800	800
4133	Mixed Livestock/Crop Systems Res	800	800	800	800	800
4134	Root and Tuber Technical Ass't	500	600	600	600	600
Economic Policy & Planning						
4116	Agriculture Data Mgt.	500	700	800	800	800
	TOTAL New Projects in FY 1984	3600	4200	4600	4600	4600

S&T/AGR
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Office of Agriculture

Terminating Projects
($ thousands)

		Estimated Date of Termination	Last Year of Funding			
			FY 1981	FY 1982	FY 1983	FY 1984
Renewable Natural Resources						
1007	Synthesis of Water Management	3/28/83	--	--	--	--
0582	Soil Families - Hawaii	5/31/83	857	700	500	--
0127	Tropical Soil - BNF Cornell	12/31/82	--	--	--	--
0128	" " - " Puerto Rico	12/31/82	--			
0129	" " - " Hawaii	6/30/83	--			
0130	" " - " NCSU	12/31/82				
0832	Fertilizer Technical Assistance	9/30/83	175	150	--	--
1004	N. Fixation Non Symbiotic Assoc.	11/29/84	--	250	--	100
Economic Policy and Planning						
0236.01	CRIES Dominion Rep./Honduras/Nicaragua	3/31/82	150			
0887	Int'l Agr. Econ Seminars	12/31/82	--			
0236.07	L.A. Planning Network	6/30/82	200			
1302	Small Farmer Tech & Marketing	8/30/83	--			
0236.05	Progress Indicators - El Salvador	4/25/83	200	--	200	--
1026	Agricultural Mechanization	8/31/82	264			
1299	Comprehensive Planning for R.D.	8/31/83	--			
Agriculture Production Division						
0600	Mineral Studies w/Rumminants	10/31/83	250	400		
0030	Sterility of Tsetse Fly	11/30/82	250	--		
0050	Improved Feed Information System	9/30/82	90			
1038	Physiology & Ecology of Ticks	9/28/83	118	200		
0473	Control of Vertebrate Pest	12/31/82	345	212		
4071	Pest Management Capability	9/30/84	95	164	175	
1149	Livestock Production Capability	9/30/84	200	--	--	
0560	Development of Improved Var. Soybean	11/30/83	825	835	835	
0614	Rootknot Nematodes	9/15/84	600	600	455	
0463	Weed Control Systems	11/30/82	--	--	--	
1318	Control of Barley	3/31/85	97	400	100	150
1181	Aflatoxin Reduction in Maize	12/31/83	--	--	100	
	TOTAL		4716	3911	2365	250

Note: Prepared as background data for FY 1984 ABS
S&T/AGR
5/3/82

TABLE III - PROJECT OBLIGATIONS BY APPROPRIATION ACCOUNT
FY 1982 TO FY 1984 ($ THOUSANDS)

OFFICE: ST/AGR

APPROPRIATION ACCOUNT - FN

PROJECT#	PROJECT TITLE	FY 1982 OYB-REVISED	FY 1983 REVISED	FY-84 PROPOSED
931-0054.	INT'L FERTILIZER DEVELOPMENT CTR _ CG	$4,000	$4,000	$4,000
931-0060.03	AGR SECTOR PLANNING AND SUPPORT - EPP	$485	$485	$400
931-0095.	WORLD RHIZOBIUM COLLECTION CENTER	$0	$100	$100
931_0203.	SEED PROGRAM AND INDUSTRY DEVELOPMENT	$366	$390	$425
931_0206.	WEED CONTROL UTILIZATION	$450	$430	$400
931-0236.05	PROGRESS INDICATORS - EL SALVADOR	$0	$200	$0
931-0236.19	PLNG ASST: WATER RESOURCES ECONOMICS	$87	$250	$300
931_0242.	NOAA ADVISORY SERVICE	$200	$100	$200
931-0473.	CONTROL OF VERTEBRATE PESTS	$212	$0	$0
931-0560.	DEV OF IMP VARIETIES OF SOYBEANS	$835	$835	$0
931_0582.	SOIL FAMILIES - HAWAII	$700	$500	$0
931-0600.	MINERAL STUDIES WITH RUMINANT ANIMALS	$400	$0	$0
931_0610.	N_FIXATION LIMITING FACTORS	$500	$300	$600
931-0613.	N-FIXATION - SYMBIOTIC	$900	$1,150	$1,100
931-0614.	PEST MGT - ROOTKNOT NEMATODE	$600	$455	$0
931_0621.	SPRING AND WINTER WHEAT	$835	$250	$150
931-0786.	IMPROVEMENT OF POSTHARVEST GRAIN SYSTEMS	$720	$650	$600
931-0829.	PLANT AND SEED MATERIALS	$150	$100	$100
931-0832.	FERTILIZER TECHNICAL ASSISTANCE (TVA)	$150	$0	$0
931-0930.	PEST MGT - RELATED ENV. PROTECTION	$810	$850	$900
931_1004.	N_FIXATION NON SYMBIOTIC ASSOCIATIVE	$250	$0	$100
931-1038.	PHYSIOLOGY AND ECOLOGY OF TICKS	$200	$0	$0
931-1181.	AFLATOXIN REDUCTION IN MAIZE	$0	$100	$0

TABLE III - PROJECT OBLIGATIONS BY APPROPRIATION ACCOUNT
FY 1982 TO FY 1984 ($ THOUSANDS)

OFFICE: ST/AGR

931-1229.	SOILS MANAGEMENT SUPPORT SERVICES	$730	$900	$900
931-1254.	CRSP - PROGRAM SORGHUM/MILLET	$1,600	$2,200	$3,500
931-1310.	CRSP - PROGRAM BEANS AND COWPEAS	$1,100	$1,500	$3,200
931-1311.	CRSP - PROG: SOIL MANAGEMENT	$2,700	$1,800	$2,350
931-1314.	AQUACULTURE TECHNOLOGY DEVELOPMENT	$360	$300	$350
931-1318.	CONTROL OF BARLEY DISEASES FOR LDCS	$400	$100	$150
931-1322.	FARM LVL POSTHARVEST GRAIN STORAGE LOSS	$0	$350	$450
931-1323.	STORAGE/PROCESSING OF FRUITS/VEGETABLES	$350	$360	$400
931-1328.	CRSP-PROG: SMALL RUMINANTS	$3,200	$2,400	$3,600
936-4023.	CRSP POND DYNAMICS	$650	$750	$700
936-4024.	FISHERY DEVELOPMENT SUPPORT SERVICES	$285	$300	$325
936-4026.	CRSP: STOCK ASSESSMENT FISHERIES	$350	$0	$500
936-4048.	CRSP: PROGRAM PEANUTS	$900	$1,950	$2,000
936-4050.	TROPICAL LEGUMES INOCULANT SERVICE	$0	$0	$0
936-4054.	INTERNATIONAL BENCHMARK SITES	$600	$900	$1,100
936-4055.	TISSUE CULTURES FOR FOOD PROD.	$0	$200	$225
936-4071.	PEST MANAGEMENT CAPABILITY (RSSA)	$164	$175	$0
936-4083.	TICK RESISTANCE IN RUMINANTS	$0	$250	$300
936-4084.01	AGRICULTURAL POLICY ANALYSIS	$0	$490	$700
936-4099.01	FARMING SYSTEMS SUPPORT	$1,892	$400	$1,300
936-4109.	AGR. PRODUCTION TECHNICAL ASSISTANCE	$600	$325	$350
936-4111.	INT'L AGR RESEARCH CENTERS	$41,910	$48,300	$54,330
936-4116.	AGR DATA MGT SYSTEM	$0	$0	$500
936-4117.	ECONOMICS OF FOOD SECURITY	$0	$400	$500
936-4120.	POSTHARVEST RODENT AND BIRD CONTROL	$0	$500	$650
936-4121.	SMALL SCALE IRRIGATION SYSTEMS	$0	$350	$350

TABLE III - PROJECT OBLIGATIONS BY APPROPRIATION ACCOUNT
FY 1982 TO FY 1984 ($ THOUSANDS)

OFFICE: ST/AGR

936-4127.	WATER MANAGEMENT SYNTHESIS II	$2,600	$500	$1,300
936-4129.	SOIL FERTILITY TESTING PROG.	$0	$0	$500
936-4130.	DEGRADATION OF PROD. EROSION - DRAINAGE	$0	$0	$700
936-4132.	INT'L SOYBEAN CENTER T.A.	$0	$0	$600
936-4133.	MIXED LIVESTOCK/CROP SYSTEMS RES.	$0	$0	$800
936-4134.	ROOT AND TUBER PROD. TECH. ASSISTANCE	$0	$0	$500
936-4135.	RAINFED AGRICULTURAL SERVICE	$0	$340	$550
TOTALS FOR FN		$73,241	$77,185	$93,055
* * OFFICE TOTAL:		$73,241	$77,185	$93,055

PROJECT NUMBER AND TITLE	G L	OBLIG DATE INIT	OBLIG DATE FIN	-TOTAL COST- AUTH	-TOTAL COST- PLAN	OBLIG THRU FY 81	FY 81 PIPE-LINE	ESTIMATED U.S. DOLLAR COST ($000) ----FY 1982---- OBLIG-ATIONS	----FY 1982---- EXPEND-ITURES	---FY 1983---- OBLIG-ATIONS	---FY 1983---- EXPEND-ITURES	FY 84 AAPL	FUNDED THRU	FY 85 OBLIG	FY 86 OBLIG	FY 87 OBLIG	ITEM NO
AGRICULTURE, RURAL DEV. AND NUTRITION																	
9310030 STERILITY METHOD FOR TSETSE FLY CONTROL	G	63	83	4890	4890	4890	150	---	130	---	20	---		---	---	---	620
9310050 IMP FEED NUTRITION INFO	G	75	82	888	888	888	50	---	50	---	---	---		---	---	---	623
9310054 INTL FERTILIZER DEVELOPMENT CENTER	G	75	C	36700	---	32700	3000	4000	4000	4000	4000	4000	0685	4000	4000	4000	624
9310056 INT BOARD OF PLANT GENETIC RESRCES-IBPGT	G	75	C	3990	2990	2990	200	---	---	---	---	---		---	---	---	625
9310060.03 AGRICULTURAL PLANNING AND SUPPORT	G	74	C	3195	---	3068	609	485	609	485	485	400	0985	400	400	400	626
9310069 INT CTR FOR AG RES IN DRY AREAD (ICARDA)	G	76	C	16630	12330	12330	814	---	---	---	---	---		---	---	---	628
9310075 ASIAN VEGETABLE RES/DEV CTR (AVRDC)	G	71	C	4560	3760	3760	176	---	---	---	---	---		---	---	---	629
9310095 WORLD RHIZOBIUM COLLECTION CENTER	G	76	C	1275	---	825	225	---	150	100	125	100	0985	100	100	100	630
9310127 TROPICAL SOILS - CORNELL	G	76	83	1325	1325	1325	90	---	75	---	15	---		---	---	---	634
9310128 TROPICAL SOILS - PUERTO RICO	G	76	83	1160	1160	1137	86	---	25	---	61	---		---	---	---	635
9310129 TROPICAL SOILS - HAWAII	G	76	83	1375	1375	1374	100	---	50	---	50	---		---	---	---	636
9310130 TROPICAL SOILS - NCSU	G	76	83	1042	1042	911	48	---	48	---	---	---		---	---	---	637
9310203 SEED PROGRAM AND INDUSTRY DEVELOPMENT	G	58	C	3545	---	2844	147	366	370	390	400	425	0385	425	425	425	642
9310205 WEED CONTROL UTILIZATION	G	76	C	2840	---	2373	372	450	450	430	430	400	0685	400	440	440	643
9310236.05 SOCIAL PROGRESS INDICATORS	G	79	83	800	800	---	---	---	---	200	100	---		---	---	---	1233

PROJECT NUMBER AND TITLE	G L	OBLIG DATE INIT	OBLIG DATE FIN	-TOTAL COST- AUTH	-TOTAL COST- PLAN	OBLIG THRU FY 81	FY 81 PIPE LINE	ESTIMATED U.S. DOLLAR COST ($000) FY 1982 OBLIG ATIONS	FY 1982 EXPEND ITURES	FY 1983 OBLIG ATIONS	FY 1983 EXPEND ITURES	FY 84 AAPL	FUNDED THRU	FY 85 OBLIG	FY 86 OBLIG	FY 87 OBLIG	ITEM NO
9310236.19 PLANNING ASST WATER RESOURCES ECONOMICS																	
9310242 NOAA ADVISORY SERVICES	G	86	814	1600	6134	815	87	126	250	200	300	0385	300	122	---	644
9310309 INT INST FOR TROPICAL AG (IITA)	G	76	C	1352	---	1347	250	200	250	100	200	200	0985	200	200	200	645
9310310 INT LAB FOR RES ON ANIMAL DISEASES-ILRAD	G	67	C	29680	24780	24774	150	---	---	---	---	---		---	---	---	648
9310311 INT LIVESTOCK CTR FOR AFRICA (ILCA)	G	74	C	17202	13902	13902	776	---	---	---	---	---		---	---	---	649
9310463 WEED CONTRL SYSTEMS IN THE DEV CTRYS_RES	G	74	C	14990	11490	11490	599	---	---	---	---	---		---	---	---	650
9310473 CONTROL OF VERTEBRATE PESTS	G	66	82	4404	4404	4404	283	---	283	---	---	---		---	---	---	652
9310533 AG DIVERSIFICATION AND TRADE _ ASIA	G	67	83	7318	7318	7105	344	212	445	---	111	---		---	---	---	654
9310560 DEV OF IMPROVED VARIETIES OF SOYBEANS	G	71	80	727	727	727	5	---	5	---	---	---		---	---	---	1068
9310582 SOIL FAMILIES - HAWAII	G	73	83	6086	6920	5250	139	835	875	835	875	---		---	---	---	658
9310600 MINERAL STUDIES WITH RUMINANT ANIMALS	G	74	83	7565	7223	5924	742	700	1090	500	852	---		---	---	---	662
9310610 FIXATION PROBLEMS AND LIMITING FACTORS	G	75	82	1800	1800	1399	317	400	350	---	367	---		---	---	---	663
9310613 N_FIXATION _ SYMBIOTIC TROPICAL LEGUMES	G	76	88	3460	5950	2900	235	500	450	300	400	600	0985	450	450	450	665
9310614 PEST MGT - ROOTKNOT NEMATODE	G	75	88	11300	11380	3630	177	900	950	1150	1075	1100	1284	1100	1100	1100	666
9310621 SPRING WINTER WHEAT	G	75	83	2900	2908	1853	150	600	500	455	705	---		---	---	---	667
9310786 FOOD GRAIN STORAGE AND MARKETING	G	76	88	3090	4125	2140	476	835	500	250	550	150	0485	250	250	250	668
	G	67	C	10404	---	6417	677	720	750	650	700	600	0685	625	650	700	669

PROJECT NUMBER AND TITLE	G L	OBLIG DATE INIT	OBLIG DATE FIN	-TOTAL COST- AUTH	-TOTAL COST- PLAN	OBLIG THRU FY 81	FY 81 PIPE-LINE	ESTIMATED U.S. DOLLAR COST ($000) ---FY 1982--- OBLIG-ATIONS	---FY 1982--- EXPEND-ITURES	---FY 1983--- OBLIG-ATIONS	---FY 1983--- EXPEND-ITURES	FY 84 AAPL	FUNDED THRU	FY 85 OBLIG	FY 86 OBLIG	FY 87 OBLIG	ITEM NO
9310826 INTERNATIONAL RICE RESEARCH INST (IRRI)																	
9310829 PLANT AND SEED MATERIALS	G	60 C		26403	24803	24800	1076	---	---	---	---	---		---	---	---	670
9310832 FERTILIZER TECHNICAL ASSISTANCE	G	55 C		2942	---	2602	152	150	150	100	152	100	0985	100	100	100	671
9310840 CIMMYT	G	65 82		4202	4352	4202	175	150	175	---	150	---		---	---	---	672
9310865 INTERNATIONAL CTR FOR TROPICAL AG (CIAT)	G	64 C		34562	28862	28862	1400	---	---	---	---	---		---	---	---	673
9310930 PEST MGT AND RELATED ENV PROTECTION	G	68 C		25544	20394	20394	1337	---	---	---	---	---		---	---	---	674
9310972 INT CRP RES INST SEMI_ARID TROPS_IVRISAT	G	71 C		7603	---	4859	761	810	1000	850	950	900	0285	1000	1100	1200	676
9310973 INTERNATIONAL POTATO CENTER (CIP)	G	72 C		18796	14296	14287	725	---	---	---	---	---		---	---	---	677
9311004 N-FIXATION NONSYMBIOTIC ASSOCIATIVE	G	72 C		13393	10693	10693	550	---	---	---	---	---		---	---	---	678
9311005 DETERMINANTS OF IRRIGATION PROBLEMS	G	77 84		1180	1277	927	119	250	200	---	150	100	1184	---	---	---	680
9311026 AGRICULTURAL MECHANIZATION	G	77 81		440	432	432	60	---	40	---	20	---		---	---	---	681
9311038 PHYSIOLOGY AND ECOLOGY OF TICKS	G	77 81		1033	1033	1033	169	---	169	---	---	---		---	---	---	684
9311050 ICLARM - FISHERIES DEVELOPMENT	G	78 82		504	704	504	140	200	340	---	---	---		---	---	---	685
9311149 LIVESTOCK PRODUCTION CAPABILITY	G	79 C		800	---	800	250	---	250	---	---	---		---	---	---	687
9311181 AFLATOXIN REDUCTION IN MAIZE	G	79 81		955	1280	955	200	---	200	---	---	---		---	---	---	691
9311229 SOIL MANAGEMENT SUPPORT SERVICE	G	77 83		414	514	414	51	---	51	100	100	---		---	---	---	693
	G	79 88		---	8657	2127	820	730	700	900	850	900	0985	1000	1000	1000	695

PROJECT NUMBER AND TITLE	G L	OBLIG DATE INIT	OBLIG DATE FIN	TOTAL COST AUTH	TOTAL COST PLAN	OBLIG THRU FY 81	FY 81 PIPE LINE	FY 1982 OBLIG ATIONS	FY 1982 EXPEND ITURES	FY 1983 OBLIG ATIONS	FY 1983 EXPEND ITURES	FY 84 AAPL	FUNDED THRU	FY 85 OBLIG	FY 86 OBLIG	FY 87 OBLIG	ITEM NO
9311254 CRSP: SORGHUM/MILLET	G	79	C	14500	---	9358	3122	1600	2422	2200	3500	3500	0285	3900	4050	4050	696
9311299 COMPREHENSIVE PLANNING FOR RURAL DEV	G	77	81	750	750	750	97	---	40	---	57	---		---	---	---	699
9311302 SMALL FARMER TECH AND MARKET ANALYSIS	G	77	83	750	750	750	141	---	71	---	70	---		---	---	---	700
9311306 CRSP: PLANNING FISHERIES/POND DYNAMICS	G	77	80	708	708	702	58	---	58	---	---	---		---	---	---	702
9311310 CRSP: BEANS AND COWPEAS	G	80	C	16700	---	5715	3365	1100	1775	1500	3200	3200	0185	3700	3800	3800	703
9311311 CRSP_PROGRAM: SOILS	G	81	C	12850	---	750	750	2700	2000	1800	2400	2350	0185	2800	2850	2850	704
9311314 AQUACULTURE TECHNOLOGY DEVELOPMENT	G	78	C	3759	---	1438	106	360	340	300	300	350	1285	350	350	350	705
9311318 CONTROL OF BARLEY DISEASES FOR LDCS	G	78	84	1681	1681	821	53	400	255	100	255	150	0285	---	---	---	706
9311322 FARM LEVEL POSTHARVEST GRAIN LOSSES	G	83	86	---	1400	---	---	---	---	350	200	450	1284	500	100	---	707
9311323 STORAGE AND PROCESS OF FRUITS AND VEGS	G	80	C	2250	---	450	226	350	300	360	360	400	0985	400	400	400	708
9311326 PEST MANAGEMENT CAPABILITY	G	79	81	---	95	95	7	---	7	---	---	---		---	---	---	709
9311328 CRSP_PROGRAM: SMALL RUMINANTS	G	78	C	15579	---	10387	3713	3200	4323	2400	4150	3600	1284	4200	4250	4250	711
9364013 CRSP-PL: PEANUTS	G	80	80	366	366	366	82	---	82	---	---	---		---	---	---	715
9364021 DRYLAND AGRICULTURAL SUPPORT SERVICES	G	81	81	500	500	500	429	---	300	---	129	---		---	---	---	716
9364023 CRSP _ POND DYNAMICS	G	82	C	5000	---	---	---	650	250	750	750	700	0385	1100	1250	1250	717
9364024 FISHERIES DEVELOPMENT SUPPORT SERVICES	G	82	91	4000	4000	---	---	285	155	300	250	325	0685	325	340	400	718

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FY 1984 ANNUAL BUDGET SUBMISSION
TABLE IV - PROJECT BUDGET DATA

BUREAU FOR SCIENCE AND TECHNOLOGY

06/07/82

PROJECT NUMBER AND TITLE	G L	OBLIG DATE INIT	FIN	-TOTAL COST- AUTH	PLAN	OBLIG THRU FY 81	FY 81 PIPE-LINE	ESTIMATED U.S. DOLLAR COST ($000) ----FY 1982--- OBLIG-ATIONS	EXPEND-ITURES	---FY 1983---- OBLIG-ATIONS	EXPEND-ITURES	FY 84 AAPL	FUNDED THRU	FY 85 OBLIG	FY 86 OBLIG	FY 87 OBLIG	ITEM NO
9364026 CRSP - PLANNING STOCK ASSESSMENTS	G	82	84	350	---	---	---	350	100	---	200	500	1284	1100	1200	1250	1071
9364048 CRSP - PEANUTS	G	82	C	9850	---	---	---	900	150	1950	1500	2000	0685	2400	2550	2550	1072
9364054 INTL BENCHMARK SITES NETWORK	G	82	90	9930	9930	---	---	600	150	900	850	1100	0585	1150	1250	1250	725
9364055 TISSUE CULTURES FOR FOOD PRODUCTION	G	80	85	500	1150	500	332	---	172	200	160	225	0984	225	---	---	726
9364061 INTL SERVICES FOR NATIONAL AG RESEARCH	G	80	C	1600	850	850	150	---	150	---	---	---		---	---	---	727
9364062 INTL FOOD POLICY RESEARCH INSTITUTE	G	80	C	2150	1350	1350	200	---	200	---	---	---		---	---	---	728
9364071 PEST MANAGEMENT CAPABILITY (RSSA)	G	79	83	1635	515	176	81	164	134	175	150	---		---	---	---	731
9364083 TICK RESISTANCE AND RUMINANTS	G	82	88	---	1500	---	---	---	---	250	80	300	0685	300	300	350	733
9364084 AGRICULTURAL PLANNING AND POLICY ANALYSI	G	83	88	---	5290	---	---	---	---	490	350	700	0685	1000	1000	1000	734
9364099.01 FARMING SYSTEMS SUPPORT	G	82	87	---	9953	---	---	1892	250	400	2100	1300	0885	1500	2296	---	736
9364109 AG PRODUCTION TECHNICAL ASSISTANCE	G	81	C	350	---	350	300	600	400	325	500	350	0985	350	375	375	739
9364111 INT AGRICULTURAL RESEARCH CENTERS	G	68	C	214162	260500	---	---	41910	44050	48300	46725	54330	1285	59800	68770	77770	741
9364116 AG DATA MANAGEMENT SYSTEM	G	84	88	---	4100	---	---	---	---	---	---	500	1284	700	800	800	743
9364117 ECONOMICS OF FOOD SECURITY	G	83	87	---	3000	---	---	---	---	400	100	500	0685	700	700	700	744
9364120 POST HARVEST RODENT AND BIRD CONTROL	G	83	92	---	7950	---	---	---	---	500	377	650	1284	700	700	700	745
9364121 SMALL SCALE IRRIGATION SYSTEMS	G	83	91	---	3500	---	---	---	---	350	260	350	1284	400	400	400	746

PROJECT NUMBER AND TITLE	G L	OBLIG DATE INIT	OBLIG DATE FIN	-TOTAL COST- AUTH	-TOTAL COST- PLAN	ESTIMATED U.S. DOLLAR COST ($000) OBLIG THRU FY 81	FY 81 PIPE-LINE	---FY 1982--- OBLIG-ATIONS	---FY 1982--- EXPEND-ITURES	---FY 1983--- OBLIG-ATIONS	---FY 1983--- EXPEND-ITURES	FY 84 AAPL	FUNDED THRU	FY 85 OBLIG	FY 86 OBLIG	FY 87 OBLIG	ITEM NO
9364127 WATER MGT SYNTHESIS II	G	82	C	20000	---	---	---	2600	900	500	1300	1300	0984	1800	1800	1800	1089
9364129 SOIL FERTILITY TESTING PROGRAM	G	84	89	---	3700	---	---	---	---	---	---	500	0984	500	600	600	1121
9364130 DEGRADIATION OF PROD EROSION - DRAINAGE	G	84	91	---	8900	---	---	---	---	---	---	700	1285	900	1000	1000	1122
9364132 INTERNATIONAL SOYBEAN CENTERS T.A.	G	84	89	---	6000	---	---	---	---	---	---	600	1184	700	800	800	1124
9364133 MIXED LIVESTOCK / CROP SYSTEMS RESEARCH	G	84	87	---	4850	---	---	---	---	---	---	800	1284	1300	1300	1450	1120
9364134 ROOT AND TUBER TECHNICAL ASSISTANCE	G	84	88	---	3000	---	---	---	---	---	---	500	1284	600	600	600	1125
9364135 RAIN FED AGRICULTURE SERVICE	G	83	92	---	6300	---	---	---	---	340	250	550	0685	650	700	725	1123
APPROPRIATION TOTAL				685998	604972	324010	33399	73241	74840	77185	84616	93055		104400	114868	121835	
GRANT				685998	604972	324010	33399	73241	74840	77185	84616	93055		104400	114868	121835	
LOAN				---	---	---	---	---	---	---	---	---		---	---	---	
PROGRAM TOTAL				685998	604972	324010	33399	73241	74840	77185	84616	93055		104400	114868	121835	
GRANT				685998	604972	324010	33399	73241	74840	77185	84616	93055		104400	114868	121835	
LOAN				---	---	---	---	---	---	---	---	---		---	---	---	

TAbLE V - FY 1984 PROPOSED PROGRAM RANKING
06/07/82

OFFICE 021 ST/AGR

RANK	DECISION PACKAGES/PROGRAM ACTIVITY	TERM/ NEW/ CONT	LOAN/ GRANT	APPROP ACCT.	PROGRAM FUNDING ($000) INCR	CUM	ITEM
	DECISION PACKAGE - PROPOSED (50)						
1	9364111 INT'L AGR RESEARCH CENTERS	0	G	FN	54330	54330	3656
2	9310054 INT'L FERTILIZER DEVELOPMENT CTR - CG	0	G	FN	4000	58330	3642
3	9311328 CRSP-PROG: SMALL RUMINANTS	0	G	FN	3600	61930	3651
4	9311254 CRSP - PROGRAM SORGHUM/MILLET	0	G	FN	3500	65430	3648
5	9311310 CRSP - PROGRAM BEANS AND COWPEAS	0	G	FN	3200	68630	3649
6	9311311 CRSP - PROG: SOIL MANAGEMENT	0	G	FN	2350	70980	3650
7	9364048 CRSP: PROGRAM PEANUTS	0	G	FN	2000	72980	3655
8	9364023 CRSP POND DYNAMICS	0	G	FN	700	73680	3652
9	9364026 CRSP: STOCK ASSESSMENT FISHERIES	0	G	FN	500	74180	3653
10	9310786 IMPROVEMENT OF POSTHARVEST GRAIN SYSTEMS	0	G	FN	600	74780	3604
11	9310060.03 AGR SECTOR PLANNING AND SUPPORT - EPP	0	G	FN	400	75180	3605
12	9310930 PEST MGT - RELATED ENV. PROTECTION	0	G	FN	900	76080	3607
13	9311229 SOILS MANAGEMENT SUPPORT SERVICES	0	G	FN	900	76980	3620
14	9364127 WATER MANAGEMENT SYNTHESIS II	0	G	FN	1300	78280	3606
15	9364120 POSTHARVEST RODENT AND BIRD CONTROL	0	G	FN	650	78930	3621
16	9311314 AQUACULTURE TECHNOLOGY DEVELOPMENT	0	G	FN	350	79280	3631
17	9364109 AGR. PRODUCTION TECHNICAL ASSISTANCE	0	G	FN	350	79630	3609
18	9364135 RAINFED AGRICULTURAL SERVICE	0	G	FN	550	80180	3611
19	9310613 N-FIXATION - SYMBIOTIC	0	G	FN	1100	81280	3626
20	9310203 SEED PROGRAM AND INDUSTRY DEVELOPMENT	0	G	FN	425	81705	3612
21	9311323 STORAGE/PROCESSING OF FRUITS/VEGETABLES	0	G	FN	400	82105	3618
22	9364099.01 FARMING SYSTEMS SUPPORT	0	G	FN	1300	83405	3615
23	9310829 PLANT AND SEED MATERIALS	0	G	FN	100	83505	3616
24	9364054 INTERNATIONAL BENCHMARK SITES	0	G	FN	1100	84605	3619
25	9364084.01 AGRICULTURAL POLICY ANALYSIS	0	G	FN	700	85305	3608
26	9364129 SOIL FERTILITY TESTING PROG.	N	G	FN	500	85805	3640
27	9310242 NOAA ADVISORY SERVICE	0	G	FN	200	86005	3632
28	9310206 WEED CONTROL UTILIZATION	0	G	FN	400	86405	3633
29	9364117 ECONOMICS OF FOOD SECURITY	0	G	FN	500	86905	3629
30	9364121 SMALL SCALE IRRIGATION SYSTEMS	0	G	FN	350	87255	3630
31	9364083 TICK RESISTANCE IN RUMINANTS	0	G	FN	300	87555	3627
32	9364024 FISHERY DEVELOPMENT SUPPORT SERVICES	0	G	FN	325	87880	3638
33	9364133 MIXED LIVESTOCK/CROP SYSTEMS RES.	N	G	FN	800	88680	3628
34	9364132 INT'L SOYBEAN CENTER T.A.	N	G	FN	600	89280	3614
35	9364130 DEGRADATION OF PROD. EROSION - DRAINAGE	N	G	FN	700	89980	3610
36	9311322 FARM LVL POSTHARVEST GRAIN STORAGE LOSS	0	G	FN	450	90430	3617
37	9310610 N-FIXATION LIMITING FACTORS	0	G	FN	600	91030	3624
38	9364055 TISSUE CULTURES FOR FOOD PROD.	0	G	FN	225	91255	3634
39	9364134 ROOT AND TUBER PROD. TECH. ASSISTANCE	N	G	FN	500	91755	3637
40	9364116 AGR DATA MGT SYSTEM	N	G	FN	500	92255	3641
41	9310236.19 PL480 ASST: WATER RESOURCES ECONOMICS	0	G	FN	300	92555	3613
42	9311204 N-FIXATION NON SYMBIOTIC ASSOCIATIVE	0	G	FN	100	92655	3625
43	9310621 SPRING AND WINTER WHEAT	0	G	FN	150	92805	3644
44	9311318 CONTROL OF BARLEY DISEASES FOR LDCS	0	G	FN	150	92955	3639
45	9310095 WORLD RHIZOBIUM COLLECTION CENTER	0	G	FN	100	93055	3623

OFFICE OF AGRICULTURE

No.	Project #	Title	Amount	Cum	IARCs CGIAR AVRDC ICLARM	CRSPs	Farming Systems	EPP Economic & Policy Planning	AGRICULTURAL PRODUCTION Crop Production	Pest & Pesticide Management	Postharvest Food Losses	Livestock	TOTAL Agricultural Production	RENEWABLE NATURAL RESOURCES INT. Soils and Water	Fertilizer and Related Activities	Fresh Water & Marine Fisheries	TOTAL Renewable Natural Res
1.	1302	Small Farmer Tech. & Marketing															
2.	4071	Pest Management Capability															
3.	1149	Livestock Production Capability															
4.	0560	Improved Varieties of Soybeans															
5.	0614	Rootknot Nematodes															
6.	1181	Aflatoxin Reduction in Maize															
7.	4101	International Agr. Research Centers	54,330	54,330	54,330	-	-	-	-	-	-	-	-	-	-	-	-
8.	0054	IFDC	4,000	58,330	4,000	-	-	-	-	-	-	-	-	-	-	-	-
9.	1328	CRSP PROG-Small Ruminants	3,600	61,930	-	3,600	-	-	-	-	-	-	-	-	-	-	-
10.	1254	CRSP PROG-Sorghum Millet	3,500	65,430		3,500	-	-	-	-	-	-	-	-	-	-	-
11.	1310	CRSP PROG-Beans and Cowpeas	3,200	68,630		3,200	-	-	-	-	-	-	-	-	-	-	-
12.	1311	CRSP PROG-Soil Management	2,350	70,980	-	2,350	-	-	-	-	-	-	-	-	-	-	-
13.	4048	CRSP PROG-Peanuts	2,000	72,980	-	2,000	-	-	-	-	-	-	-	-	-	-	-
14.	4023	CRSP PROG-Pond Dynamics	700	73,680	-	700	-	-	-	-	-	-	-	-	-	-	-
15.	4026	CRSP PLNG-Stock Assessment	500	74,180	-	500	-	-	-	-	-	-	-	-	-	-	-
16.	0786	Imp. of Postharvest Grain Loss	600	74,780	-	-	-	-	-	-	600	-	-	-	-	-	-
17.	0060	Agr. Sector Planning & Support	400	75,180	-	-	-	400	-	-	-	-	-	-	-	-	-
18.	0930	Pest Mgt. Related Env. Protection	900	76,080	-	-	-	-	-	900	-	-	-	-	-	-	-
19.	1279	Soil Management Support Service	900	76,980	-	-	-	-	-	-	-	-	-	900	-	-	-
20.	4127	Synthesis of Water Management	1,300	78,280	-	-	-	-	-	-	-	-	-	1,300	-	-	-
21.	4120	Postharvest Rodent & Bird Control	650	78,930	-	-	-	-	-	-	650	-	-	-	-	-	-
22.	1314	Aquaculture Tech. Development	350	79,280	-	-	-	-	-	-	-	-	-	-	-	350	-
23.	4109	Agr. Production Tech. Assistance	350	79,630	-	-	-	-	350	-	-	-	-	-	-	-	-
24.	4135	Rainfed Agriculture Service	550	80,180	-	-	-	-	-	-	-	-	-	550	-	-	-
25.	0613	N. Fixation-Symbiotic, including Inoculant Service	1,100	81,280	-	-	-	-	-	-	-	-	-	-	1,100	-	-
26.	0203	Seed Program and Industry Dev.	425	81,705	-	-	-	-	425	-	-	-	-	-	-	-	-
27.	1323	Storage Processing/Fruits & Veg.	400	82,105	-	-	-	-	-	-	400	-	-	-	-	-	-
28.	4099	Farming Systems Support	1,300	83,405	-	-	1,300	-	-	-	-	-	-	-	-	-	-
29.	0829	Plant & Seed Materials	100	83,505	-	-	-	-	100	-	-	-	-	-	-	-	-
30.	4054	Int. Benchmark Sites Network	1,100	84,605	-	-	-	-	-	-	1,100	-	-	-	-	-	-
31.	4084	Agricultural Policy Analysis	700	85,305	-	-	-	700	-	-	-	-	-	-	-	-	-

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OFFICE OF AGRICULTURE

No.	Project #	Title	Amount	Cum	IARCs CGIAR AVRDC ICLARM	CRSPs	Farming Systems	EPP: Economic & Policy Planning	AGRICULTURAL PRODUCTION: Crop Production	Pest & Pesticide Management	Postharvest Food Losses	Livestock	TOTAL Agricultural Production	RENEWABLE NATURAL RESOURCES UNIT: Soils and Water	Fertilizer and Related Activities	Fresh Water & Marine Fisheries	TOTAL Renewable Natural Res
32.	4129	Soil Fertility Testing Program	500	85,805	-	-	-	-	-	-	-	-	-	500	-	-	-
33.	0242	NOAA Advisory Service	200	86,005	-	-	-	-	-	-	-	-	-	-	-	200	-
34.	0206	Weed Control Utilization	400	86,405	-	-	-	-	-	400	-	-	-	-	-	-	-
35.	4117	Economics of Food Security	500	86,905	-	-	-	500	-	-	-	-	-	-	-	-	-
36.	4121	Small Scale Irrigation Systems	350	87,255	-	-	-	-	-	-	-	-	-	350	-	-	-
37.	4083	Tick Resistance of Ruminants	300	87,555	-	-	-	-	-	-	-	300	-	-	-	-	-
38.	4024	Fishery Dev. Support Service	325	87,880	-	-	-	-	-	-	-	-	-	-	-	325	-
39.	4133	Mixed Livestock Crop Systems Res.	800	88,680	-	-	800	-	-	-	-	-	-	-	-	-	-
40.	4132	International Soybean Center, T.A.	600	89,280	-	-	-	-	600	-	-	-	-	-	-	-	-
41.	4130	Degradation of Productivity, Erosion and Drainage	700	89,980	-	-	-	-	-	-	-	-	-	700	-	-	-
42.	1322	Farm Level Postharvest Grain Storage Loss	450	90,430	-	-	-	-	-	-	450	-	-	-	-	-	-
43.	0610	N. Fixation Limiting Factors	600	91,030	-	-	-	-	-	-	-	-	-	-	600	-	-
44.	4055	Tissue Culture for Food Prod.	225	91,255	-	-	-	-	-	-	-	-	-	225	-	-	-
45.	4134	Root & Tuber Technical Ass't.	500	91,755	-	-	-	-	500	-	-	-	-	-	-	-	-
46.	4116	Agriculture Data Management	500	92,255	-	-	-	500	-	-	-	-	-	-	-	-	-
47.	0236	Water Research Economics	300	92,555	-	-	-	300	-	-	-	-	-	-	-	-	-
48.	1004	N. Fixation Non-Symbiotic Assoc.	100	92,655	-	-	-	-	-	-	-	-	-	-	-	-	-
49.	0621	Spring and Winter Wheat	150	92,805	-	-	-	-	150	-	-	-	-	-	100	-	-
50.	1318	Control of Barley Diseases in LDCs	150	92,955	-	-	-	-	150	-	-	-	-	-	-	-	-
51.	0095	World Rhizobium Collection Center	100	93,055	-	-	-	-	-	-	-	-	-	-	100	-	-
		TOTALS		93,055	58,330	15,850	2,100	2,400	2,275	1,300	3,200	300	7,075	4,525	1,900	875	7,300

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: James L. Walker

TITLE: International Agricultural Research Centers (IARCs)	FUNDS: Agriculture, Rural Development and Nutrition	PROPOSED OBLIGATION (In thousands of dollars) FY 84: 54,330	LIFE OF PROJECT: Continuing		
NUMBER: 936-4111 GRANT XX LOAN ☐ NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1982, Main Volume amended version, p. 435	INITIAL OBLIGATION FY 68	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing	

Purpose: To generate, through research, urgently needed technology for increasing production of the major food crops and livestock in developing countries.

Background and Progress to Date: This program includes 15 international agricultural research centers and programs. The first 13 are supported through the Consultative Group on International Agricultural Research (CGIAR). The last two (AVRDC and ICLARM) are not part of the CGIAR network. The International Agricultural Research Centers (IARCs) link with LDC national programs to form a key element in a global research network to supply the technology needed to expand food production.

CGIAR is an organization of donors that coordinates funding and provides program guidance to the IARCs under its aegis. CGIAR was established in 1971 and first coordinated funding in 1972. Total contributions were $20 million in 1972 and rose to pledges of over $149 million in 1982. AID helped establish CGIAR and has pledged about 25% of its required total annual funding.

In 1979 the United States and other major donors of the CGIAR agreed to try to finance a forward plan for the IARCs that would hold the older centers to a three percent real growth, complete the currenly developing centers, and take up some additional high priority activities. It has not been possible to attain these growth rates due to high rates of inflation and unfavorable exchange rate in nations. Thus the older centers have been held to virtually no growth in real terms and newer centers have had inadequate funds to complete their growth. In some cases it became necessary to cut activities and staff in 1982.

A.I.D. and other CGIAR members have encouraged the IARCs to focus on the problems of small farmers and poor consumers. The IARCs are now giving greater emphasis to the less favored production areas in the developing nations.

Individual IARC's, their locations, year of establishment, budget guideline figure of 1984 (in millions of dollars), major research programs, and some accomplishments are listed below.

The 1984 budget guideline figures for individual centers, which are very preliminary, total $225.8 million. The 13 CGIAR centers account for $219.4 million of this figure; AVRDC and ICLARM account for the remaining $6.4 million. Of the total proposed AID obligation of $54.33 million, 53.0 million is for the CGIAR centers and $1.33 million is for AVRDC and ICLARM. AID's traditional policy has been to provide 25% of total funding of the CGIAR centers. On this basis, a CGIAR contribution of $54.85 million would be called for, compared to the proposed figure of $53.0 million. It is, however, not expected that total CGIAR funding will reach the guideline total; the proposed AID contribution should be adequate (it would provide 25% of total funds up to $212 million).

- International Rice Research Institute (IRRI), Philippines 1960, $28.5, rice and rice-based cropping systems. High yielding varieties of rice, developed by IRRI and national programs, were planted on about 62 million acres in the non-communist developing countries in 1976/77, or about 28% of the total rice areas of LDCs. An IRRI variety, IR-36, resistant to one of the major biotypes of the brown planthopper, has been adopted on about 50% of the HYV area in Indonesia. A new IRRI variety, IR-42, performs well under relatively low fertility and with less than ideal water control. In 1979, 19 lines of rice developed by IRRI were named as varieties by seven national programs. In 1980, three varieties (IR-50, IR-52, and IR-54) were named as varieties by the Philippine Seed Board. Increased collaborative research with the People's Republic of China has led to a strengthening of research on hybrid rice which holds promise of further yield increases. 931-0826

- International Maize and Wheat Improvement Center (CIMMYT), Mexico, 1964, $30.8, corn and wheat with some work in barley and triticale (a wheat and rye cross). High yielding varieties of wheat, developed by CIMMYT and national programs, were planted on about 73 million acres, over 44% of the total wheat area in the non-communist developing countries in 1976/77. In 1979, collaborators in other countries released varieties containing CIMMYT-derived germplasm as follows: over 50 varieties of bread wheat in 19 countries; 8 varieties of durum wheat in 6 countries; 13 varieties of triticale in 7 countries (3 in the U.S.); and 4 varieties of barley in 3 countries. Research is underway to develop wheat and corn varieties better suited to tropical regions. Short-stalked corn populations are being selected which have greater drought tolerance, resistance to lodging, and earlier maturity. High-lysine corn varieties have been developed with yields equal to normal varieties; some are now ready for commercial production. Crosses have been made between corn and sorghum to increase drought resistance in corn. 931-0840

- International Institute of Tropical Agriculture (IITA), Nigeria 1967, $25.1, cowpeas, yams, sweet potatoes, cassava, maize, rice and farming systems. New minimum- and no-tillage systems have been developed which promise to reduce both energy use and loss of topsoil. Methods of forest clearing and soil

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	172,573	159,787	12,786		IRRI, CIMMYT, IITA, CIP, CIAT, ICRISAT, ILCA, ICARDA, IFPRI, WARDA, IBPGR, ISNAR, AVRDC, ILRAD, ICLARM
Estimated Fiscal Year 1982	41,590	43,980		1/1/82-12/31/82	
Estimated through September 30, 1982	214,163	203,767	10,396		
Proposed FY 1983	48,320	46,405		1/1/83-12/31/83	
Estimated through Fiscal Year 1983	262,163	250,174			
Proposed FY 1984	54,330	Future Year Obligations	Estimated Total Cost	1/1/84-12/31/85	
		Continuing	Continuing		

PROGRAM: Centrally Funded

ACTIVITY DATA SHEET

PROJECT MANAGER: James L. Walker

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
International Agricultural Research Centers (IARCs)	Agriculture, Rural Development and Nutrition	FY 84		LIFE OF PROJECT
NUMBER GRANT ☐ LOAN ☐	NEW ☐ CONTINUING ☐	PRIOR REFERENCE	INITIAL OBLIGATION FY	ESTIMATED FINAL OBLIGATION FY	ESTIMATED COMPLETION DATE OF PROJECT FY

anagement have been developed to minimize soil degradation and erosion. Two arly maturing, high-yielding lines of cowpeas have been developed and are eing tested in 30 countries; a variety with improved insect resistance is being released in 5 countries. Yam varieties have been developed with resistance to major insect pests. Two disease-resistant cassava varieties are expected to form the basis for a major production breakthrough in Nigeria. Two corn varieties suited to lowland conditions are being extensively grown in Nigeria; another is finding increasing use as a second crop in Nigeria. 931-0309-04

- International Center for Tropical Agriculture (CIAT), Colombia, 1968, $25.9, cassava, beans, rice, forage and maize. Cassava: simple agronomic practices developed at CIAT can increase yield 50 to 60% at the farm level; high-yielding varieties developed by CIAT are now in regional trials in Latin America and Asia; cropping systems with cassava and beans are being tested. Beans: sources of genetic resistance to most pests have been identified and bred into new lines (three varieties with virus resistance have been named and are undergoing seed multiplication in Guatemala); greater nitrogen-fixing ability is being bred into new varieties. Rice: a new variety, CICA 8, has been widely adopted in Latin America; it is taller than previous varieties, has lower fertilizer requirements, and does better under upland conditions. Forages: improved forages for pastures are under extensive pre-release testing. 931-0930

- International Potato Center (CIP), Peru, 1972, $13.7, white (Irish) potatoes. CIP is developing the use of true seed rather than tubers for the propagation of potatoes by small farmers to cut production costs and control diseases. True seed is expected to be used in one or two developing nations by 1982. CIP is also broadening the area where potatoes can be grown by developing varieties for the lowland tropics and for low temperature, high altitude regions. It has developed a simple and inexpensive method of seed storage which is widely used by small farmers in the Philippines. 931-0973

- International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), India, 1972, $23.2, sorghum, pearl millet, pigeon peas, chickpea, groundnut, and farming systems. Improved lines of ICRISAT's major crops have been developed and widespread farm testing is underway in country programs. Several lines are undergoing seed production prior to release. ICRISAT is expanding its work on sorghum and millet in West Africa. In the case of farming systems, a new intercropping system involving broad beds and furrows has been tested and is ready to extend to national programs. Another system makes it possible to raise a second crop on certain soils during what used to be the fallow season. 931-0972

- International Laboratory for Research on Animal Diseases (ILRAD), Kenya, 1974, $13.4, control of trypanosomiasis and theileriosis (East Coast Fever). ILRAD has made significant scientific breakthroughs in research on trypanosomiasis and expects to soon be ready to field test possible vaccine materials. In the case of East Coast Fever, ILRAD hopes that it will be able to develop a useful general vaccine within the next five years. More specific vaccines would have to then be tailored for individual areas. 931-0310

- International Livestock Center for Africa (ILCA), Ethiopia, 1974, $15.9, systems of livestock production. ILCA's new headquarters facilities were completed in the fall of 1980. The main research program is carried out in four ecological zones. A study of trypanotolerant breeds of livestock in Africa has been prepared and work is underway to collect data on the productivity of different trypanotolerant breeds. Work in Ethiopia Highlands has demonstrated the usefulness of improved practices on milk production. 931-0311

- International Center for Agricultural Research in the Dry Areas (ICARDA), Lebanon, Syria, 1976, $26.4, barley, lentils, broad beans, and dryland farming systems. Field research is well underway on a new research station in Syria and in several cooperative national programs. Selection and development of improved cereals, food legumes, and forages is underway. The farm ing systems research program has been established. Promising lines of drought-resistant broad beans have been identified. Disease resistant chickpeas have been selected, allowing chickpeas to be grown as a winter crop. Practices that substantially increase farmers' yields of wheat and barley have been widely demonstrated. 931-0069

- International Food Policy Research Institute (IFPRI), Washington, 1976 (joined CGIAR in 1980), $3.9, identification and analysis of alternative national and international strategies and policies for meeting food needs in the world, with particular emphasis on low-income countries and on the poorer groups within those countries. IFPRI's research has concentrated on defining the magnitude and composition of food problems in the developing countries, generating a series of indicators for needed actions; and food policies in those countries. A substantial and increasing number of research reports have been issued.

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981					
Estimated Fiscal Year 1982					
Estimated through September 30, 1982					
Proposed FY 1983					
Estimated through Fiscal Year 1983					
Proposed FY 1984		Future Year Obligations	Estimated Total Cost		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: James L. Walker

TITLE	FUNDS
International Agricultural Research Centers (IARCs)	Agriculture, Rural Development and Nutrition
NUMBER GRANT ☐ LOAN ☐ NEW ☐ CONTINUING ☐	PRIOR REFERENCE

PROPOSED OBLIGATION (in thousands of dollars)		
FY 84		LIFE OF PROJECT
INITIAL OBLIGATION FY	ESTIMATED FINAL OBLIGATION FY	ESTIMATED COMPLETION DATE OF PROJECT FY

- West African Rice Development Association (WARDA), Liberia, 1971, $4.0. WARDA is an inter-governmental association of 15 West African nations, established to help achieve self-sufficiency in rice. The CGIAR supports the part of WARDA's effort concerned with the introduction, initial evaluation, and coordinated trials of new varieties. In 1980 about 225 sets of seeds and chemicals were distributed to 61 sites throughout the region for testing. The initial evaluation tests identified 21 superior upland lines and 22 promising irrigated lines for further testing. Coordinated trials were carried out in each member country. AID will recommend formation of a special donors group for WARDA and unification of its total program.

- International Service for National Agricultural Research (ISNAR), Netherlands, 1980, $4.1, technical assistance for detailed planning of national research systems and programs, given at the request of the developing countries. ISNAR became functional in September 1980.

- International Board for Plant Genetic Resources (IBPGR), Rome, 1973, $4.5, collection, conservation and utilization of plant genetic resources. Three regional programs have been established and over 50 genetic resource centers are working with IBPGR. In 1979, over 200 consultants provided technical advice. Field missions were also utilized. The genetic resources information program was reorganized. Analysis of the world's genetic resources for wheat is well advanced. 931-0056

- Asian Vegetable Research and Development Center (AVRDC), Taiwan, 1971, $4.8, tomatoes, soybeans, Chinese cabbage, and mungbean. AVRDC has developed a tropical tomato which is both heat and disease resistant; lines have been released and are now in production in Asia and elsewhere. Improved varieties of soybeans are undergoing seed multiplication in Indonesia and are expected to boost yields dramatically in East Java. Hybrid Chinese cabbage varieties corporating AVRDC parent material have been released in South Korea.

- International Center for Living Aquatic Resources Management (ICLARM), Philippines 1977, $1.6, fisheries and aquaculture in the LDCs, improved flow of technological information to small scale fish farmers and fishermen, and training opportunities to junior LDC scientists who will support improved fishery sector performance.

The International Center for Living Aquatic Resources Management's mandate is a global one and the center works with fisheries institutions in a number of LDCs. Initial program efforts have been concentrated in Asia on aquaculture, traditional fisheries and resource development and management. Of these, aquaculture is the largest program focussing its research upon tilapias, mullets, milkfish and carps and upon the reproduction, nutrition, genetics and pathology of these. An expansion of traditional marine fisheries and reef resources development will begin in 1983.

- Related Supporting Activities. Special supporting activities are often carried out by the CGIAR system or in conjunction with it. These require modest additional funding beyond that provided to the individual centers. (The CGIAR sponsors, particularly the World Bank, bear the overhead costs - particularly the CGIAR and TAC Secretariats - of the system.) Recent examples include a study of water management, the second review of the CGIAR system, and preparation of a bulletin on the CGIAR system. At this point it is not clear specifically what activities may arise in 1984. Possibilities include further study of water management by a group of CGIAR donors (but not within the CGIAR system) or support for travel costs of regionally-designated LDC observers/participants in CGIAR meetings. But the actual disposition will not be clear for sometime. An amount of $50,000 is tentatively suggested for this purpose.

- Host Country and Other Donors: A.I.D. provides about 25% of total core funds, the other 75% is provided by other donors. In 1981, A.I.D.'s contributions to CGIAR centers (excluding AVRDC and ICLARM) totaled $35.0 million, while total contributions were nearly $140 million. The other $105.0 million was provided by 32 other donors. A.I.D.'s contribution to AVRDC and ICLARM also represented about 25% of total contributions.

Other major donors among the developed nations and international organizations were: World Bank, Japan, Germany, Canada, Inter-American Development Bank (IDB), United Kingdom, Commission of the European Communities, International Fund for Agricultural Development, United Nations Development Program, Australia, Netherlands, Sweden, OPEC Fund, Switzerland, Belgium, Norway, Italy, International Development Research Center (Canada), France, Denmark, Ford Foundation, Rockefeller Foundation, Leverhume Trust, Spain, The Arab Fund, Ireland, the Asian Development Bank and the African Development Bank. The IDB contribution ($7.4 million) was limited to the three Latin American Centers (CIMMYT, CIAT, CIP) and was drawn from Social Progress Trust Funds

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981					
Estimated Fiscal Year 1982					
Estimated through September 30, 1982					
Proposed FY 1983					
Estimated through Fiscal Year 1983					
Proposed FY 1984		Future Year Obligations	Estimated Total Cost		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER:

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
International Agricultural Research Centers (IARCs)	Agriculture, Rural Development and Nutrition	FY 84		LIFE OF PROJECT
NUMBER GRANT ☐ LOAN ☐ NEW ☐ CONTINUING ☐	PRIOR REFERENCE	INITIAL OBLIGATION FY	ESTIMATED FINAL OBLIGATION FY	ESTIMATED COMPLETION DATE OF PROJECT FY

money in Mexico, Colombia, and Peru. Starting in 1982, IDB's Fund for Special Operations was also be utilized.

Host countries have provided the sites for the IARCs. Nigeria has been a donor since 1975. Two other developing nations - Mexico and the Philippines - became donors in 1980. India became a member in 1981, and Brazil joined in 1982.

Beneficiaries: Farmers & fishermen who will benefit from higher yields, and consumers who will have access to greater food supplies at lower unit prices.

FY 1984 Program: The IARCs will continue their work to develop improved technology for increasing food production in LDCs, with increasing attention to technology relevant to small farmers and less-advantaged production areas. Research will continue on insect and disease problems that threaten to lower current production levels. The training of developing country scientists, extensionists and research administrators will continue as a major center function.

Major Outputs: New technologies suitable for use by small farmers; technologies using new high-yielding strains, disease and climatic resistant varieties, and farming systems to increase crop and animal production while economizing on scarce farm resources. The technologies developed by the IARCs come into use in the LDCs first in national testing programs and then in nationwide farm use.

A.I.D.-financed Inputs:

	($ thousands) FY 84
Grants to International Agricultural Research Centers and Programs	52,330

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981					
Estimated Fiscal Year 1982					
Estimated through September 30, 1982					
Proposed FY 1983					
Estimated through Fiscal Year 1983					
Proposed FY 1984		Future Year Obligations	Estimated Total Cost		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: John L. Malcolm

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
International Fertilizer Development Center - IFDC	Agriculture, Rural Development and Nutrition	FY 84 4000	LIFE OF PROJECT Continuing
NUMBER 931-0054 GRANT [X] LOAN [ ]	NEW [ ] CONTINUING [X]	PRIOR REFERENCE FY 1983 Annex V Centrally Funded Programs, p. 22	INITIAL OBLIGATION FY 75 / ESTIMATED FINAL OBLIGATION FY Continuing / ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To assure a dependable supply of better fertilizer at lower cost to farmers of the developing countries.

Background and Progress to Date: Between 40 and 50 percent of the increased farm output needed in developing countries over the next 20 years will result from the use of fertilizer. For the densely populated land-scarce parts of the world fertilizer use offers the only real hope to increase food production. The poor soils of sparsely populated areas require fertilizer before they can be made productive. High and rising energy costs will make conventional fertilizer too costly for many farmers. A.I.D. will probably contribute from $80 to $100 million toward the purchase of fertilizer during the current fiscal year.

Since it became functional in 1975, IFDC has been working on ways to make fertilizer more efficient. Current efforts are focused on nitrogen, phosphorus and sulfur. Sulfur-coated urea and supergranules can almost double the yield of rice per pound of nitrogen. Rock phosphates or partially treated rocks offer low cost and energy saving alternatives to fully processed fertilizers but the ore, process and end use must be fully compatible.

Means of exploiting small phosphate deposits as cottage industries demonstrated by IFDC will provide employment, and give farmers access to local sources of this important fertilizer. Granulation has produced nitrogen, phosphorus and potash fertilizer which are as easy to use as the premium grades but much less costly to prepare.

IFDC improved the operating efficiency of fertilizer factories in developing countries by training and by direct technical assistance. More than 1050 engineers and managers have been trained by IFDC. The trainees have become trainers extending impact. Over 100 projects in 49 countries are in progress or have been completed by IFDC.

Host Country and Other Donors: Australia, Bangladesh, Brazil, Canada, Colombia, Israel, The Netherlands, Nigeria, Philippines, Senegal, West Germany, Venezuela, and UNDP, to name a few, are all sponsoring work at IFDC which is in addition to that covered by A.I.D. grant.

Beneficiaries: Farmers, chemical factory, transport workers and retailers all benefit directly from the work of IFDC.

FY 84 Program: Research on programmed release nitrogen fertilizers and non-conventional phosphates will continue. A special effort will be made to get farm test demonstrations on new products. Technical assistance will continue on a self-financing basis wherever possible. Full advantage will be taken of TVA facilities and staff when providing technical assistance.

Major Outputs and A.I.D. Units:	All Years Units
New and modified fertilizers	14
Phosphate rocks characterized	135
Training (individuals)	2700
Preinvestment surveys	24
Technical Assistance Missions	225
Publications	60

A.I.D. Financed Inputs in $000s	FY 84
Personnel (900 work months)	$1800
Operations	1460
Logistics	440
Maintenance, Repair and Equipment	300
Modification	
TOTAL	$4000

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	32700	29700	3000		
Estimated Fiscal Year 1982	4000	4000		7/1/82 to 6/30/83	International Fertilizer Development Center - IFDC
Estimated through September 30, 1982	36700	33700	3000		
Proposed FY 1983	4000	4000		7/1/83 to 6/30/84	
Estimated through Fiscal Year 1983	40700	37700	3000		
Proposed FY 1984	4000	Future Year Obligations	Estimated Total Cost	7/1/84 to 6/30/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Robert I. Jackson

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Collaborative Research Support Program - CRSP - Sorghum/Millet	Agriculture, Rural Development and Nutrition	FY 84 3,500	LIFE OF PROJECT Continuing

NUMBER 931-1254 GRANT ☒ LOAN ☐	NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983, Annex V, Centrally Funded Programs, p.22	INITIAL OBLIGATION FY 79	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To increase sorghum/millet production, utilization and to improve research capability in LDCs through collaborative research between U.S. and LDC institutions.

Background and Progress to Date: Sorghum/millet are basic foods consumed by the poorest segment of the populations in much of Africa, the Indian subcontinent and parts of Latin America. This project will develop collaborative relationships between U.S. and LDC institutions to attack constraints to increased production and utilization of sorhghum/millet in LDCs. The immediate objectives are to: (1) expand the body of knowledge in sorghum/millet as part of small farmer production systems; (2) develop and test appropriate technologies and practices to improve productivity of target production systems; (3) expand the level of competence of LDC scientists to conduct research on grain sorghum/millet production systems; and (4) to improve sorghum/millet grain production capability of developing countries. This Sorghum/Millet Collaborative Research Support Program (CRSP) was authorized by A.I.D., effective July 1, 1979. Subgrants to the eight participating U.S. Land-Grant institutions have been made based upon the program plan as set forth to the Basic Grant Document.

Collaborative activities are underway in the Sudan, Mali, Honduras, Upper Volta and Botswana in 1982. Efforts are currently being made to identify and to develop specific plans for collaborative activities with LDC collaborators other Latin American and African countries. A joint agreement has been signed with the Centro Internacional de Agricultura Tropical (CIAT) and the International Crops Research Institute for Semi-Arid Tropics (ICRISAT) for collaborative activities in Latin America. Furthermore, close cooperation of CRSP activities with ICRISAT is being maintained on a world-wide basis. ICRISAT has been involved in all stages of program planning to avoid duplication and overlap of activities.

Host Countries and Other Donors: All LDC collaborative institutions will provide a minimum of two research workers plus supporting staff for conducting research in their respective countries. In addition, they will provide land and laboratory facilities in each country, estimated to be a contribution of $10,000 at each site. The eight U.S. universities will provide a minimum of 25 percent of the A.I.D. matching funds

Beneficiaries: LDC sorghum/millet research and production programs initially and the LDC small farmer and urban poor will be the ultimate beneficiaries worldwide.

FY 84 Program: Activities will continue on applied research problems as approved by A.I.D. in FY 1979, dealing with solving constraints to increased production and utilization of sorghum/millet, i.e., cropping systems on small LDC farms and development of improved varieties. U.S. institutions became more deeply involved in collaborative research with LDC institutions by providing 45 person months in LDCs and training four LDC graduate students at U.S. universities and about 50 students at workshops and on-the-job.

Major Outputs and A.I.D. Units:	All Years Units
Sorghum/millet breeding and research programs in LDCs	10
High yielding varieties	200
Multiple disease and insect resistant varieties	40
Cropping systems and packages of management practices	20
Improved village cooking methods and family nutrition programs	50
Communication strategies for technology transfer	10
New germplasm sources for disease and insect resistance in sorghum/millet	20

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (500 person months)	$2200
Logistic Support	350
Training (550 person months)	150
Equipment and facilities	800
TOTAL	$3500

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	9,358	6,236	3,122		Universities of Nebraska, Purdue, Texas A&M, Kentucky, Kansas State, Arizona, Mississippi State and Florida A&M
Estimated Fiscal Year 1982	1,600	2,422		7/1/82-6/30/83	
Estimated through September 30, 1982	10,958	8,658	2,300		
Proposed FY 1983	2,200	3,500		7/1/83-2/28/84	
Estimated through Fiscal Year 1983	13,158	12,158	1,000		
Proposed FY 1984	3,500	Future Year Obligations	Estimated Total Cost	3/1/84-2/28/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: John M. Yohe

TITLE: Collaborative Research Support Program - CRSP - Beans and Cowpeas	FUNDS: Agriculture, Rural Development and Nutrition	PROPOSED OBLIGATION (In thousands of dollars): FY 84 3,200	LIFE OF PROJECT: Continuing
NUMBER: 931-1310 GRANT ☒ LOAN ☐ NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983 Annex V, Centrally Funded Programs, p. 22	INITIAL OBLIGATION FY 80	ESTIMATED FINAL OBLIGATION FY Continuing
			ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

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

Background and Progress to Date: Common beans and cowpeas are base food legume crops consumed by the poorest segment of the populations in Africa and Latin America. This project will develop collaborative relationships between U.S. and LDC institutions to attack constraints to increased production and utilization of beans/cowpeas. The immediate objectives are to: (1) expand the body of knowledge on beans/cowpeas as part of small farmer production systems; (2) develop and test appropriate technologies and practices to improve productivity of target production systems; (3) expand the level of competence of LDC scientists to conduct research on common bean/cowpea production systems; and (4) to improve bean/cowpea production capability of developing countries.

The CRSP grant was made September 30, 1980. Seventeen subgrants have been made to the recommended participating institutions based upon the program plan approved by A.I.D. Each subgrant includes a signed agreement between the host country government, the host country research institution, the USAID mission and the U.S. participating institution. Research work has been initiated in the 17 subgrants. Close coordination for planning of the CRSP activities has been maintained with the Centro Internacional de Agricultura Tropical (CIAT) and the International Institute for Tropical Agriculture (IITA). To avoid duplication and overlap of activities, the developing countries in the CRSP have been involved at all stages of program planning.

Host Countries and Other Donors: All collaborative developing country institutions will provide personnel and facilities for conducting research in their respective countries. The participating U.S. universities will provide a minimum of 25% of the A.I.D. budget in matching funds.

Beneficiaries: Bean/Cowpea research and production programs in developing countries initially, and the small farmer and urban poor will be the ultimate beneficiaries worldwide.

FY 84 Program: Activities will continue on applied research problems as approved by A.I.D. in FY 80, dealing with solving constraints to increased production and utilization of beans and cowpeas, such as cropping systems on small farms, development of improved varieties, multiple disease and insect resistant varieties, etc. The U.S. institutions will become more deeply involved in collaborative research with developing country institutions.

Major Outputs and A.I.D. Units:	All Years Units
Self-sustaining bean and cowpea production and breeding programs	20
LDC staff trained in production and processing	200
Worldwide network for bean/cowpea research	1
Cropping systems and packages of management practices	20
Multiply disease and insect resistant varieties	80
Communication strategies for technology transfer	20
New selection criteria for crop breeding programs	20
High yielding varieties	100
New germplasm sources for disease and insect resistance in beans/cowpeas	100

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (500 person months)	$1,800
Training (170 person months)	400
Commodities	600
Other costs	400
TOTAL	$3,200

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	5,715	2,350	3,365		
Estimated Fiscal Year 1982	1,100	1,775		9/30/80-4/30/83	Michigan State University
Estimated through September 30, 1982	6,815	4,125	2,690		
Proposed FY 1983	1,500	3,200		5/1/83-1/31/84	
Estimated through Fiscal Year 1983	8,315	7,325	990		
Proposed FY 1984	3,200	Future Year Obligations	Estimated Total Cost	2/1/84-1/31/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: John L. Malcolm

TITLE: Collaborative Research - CRSP Soil Management	FUNDS: Agriculture, Rural Development and Nutrition	PROPOSED OBLIGATION (In thousands of dollars) FY 84: 2350	LIFE OF PROJECT: Continuing	
NUMBER: 931-1311 GRANT ☒ LOAN ☐	NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983 Annex V Centrally Funded Program, p. 24	INITIAL OBLIGATION FY 81	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To find economical ways to increase productivity of tropical soils while protecting them from both short-term and cumulative damage and to enlarge the pool of scientists to work on soil problems in the developing countries.

Background and Progress to Date: This is a new project in the early development stage. Previous work sponsored by A.I.D. and others has shown that tropical soils can be very productive but most of this work was under intensive management to grow export crops. There is an urgent need to develop a range of soil management options for use by farmers with limited land and little money to invest. They are among the poorest in the world today.

Although five agro-ecological zones were identified for target areas for soil research, only three can be covered by funds available: (1) Humid Tropics, (2) Semi-arid Tropics, (3) Acid Savannas. Critical technical problems for study are: erosion control, suppression of toxic aluminum and manganese, lime requirements, nitrogen economy, phosphorus requirements and fixation, plant nutrition balance including secondary and micronutrients and maintenance of soil physical structure.

North Carolina State University was selected by the participating institutions as the Management Entity.

Planned research in Colombia and Upper Volta will be delayed until additional funds are available for the project or from other sources.

Host Country and Other Donors: Brazil, Niger, Peru, CIAT, CIP, ICRISAT and IRRI.

Beneficiaries: The professional staffs of the host countries and of participating U.S. institutions will be the direct beneficiaries of this program. The results of the research will benefit farmers of the tropics by allowing them to increase yields without endangering their long-term utilization of the existing soil base.

FY 84 Program: By 1984 research at the selected sites should be well established. The first tests of practices successful in other areas will have been completed and refinement of the research design begun. The impact of three variations of mechanical clearing on soil structure and fertility will be measured at Yurimaguas in Peru. Four grass-legume pasture combinations will be evaluated in cooperation with CIAT. Production cost, yield and income data from at least 12 cooperating farmers will be analyzed. Trees and other perennials will be included in soil management systems.

Minumum cost nitrogen and phosphate fertilizer levels will be established for the semi-arid tropics. Chemical and mechanical means to prevent crusting will be tested under laboratory and field conditions. Nitrogen fixation, yield and persistence of five legumes will be assessed under natural rainfall. In steeplands rainfall infiltration rates, run-off and soil loss data with annual and perennial crops will be collected. Six of the host country technicians will have completed training.

Should additional funds become available through this project or from other sources additional work in the acid savannas will be started. With a substantial increase in funding, research on tropical steeplands may be begun also.

Major Outputs and A.I.D. Units:	All Years Units
Experiment sites characterized	40
Management systems devised	12
Scientists trained (500 person months)	20
Reports and publications	44

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (115 person months)	$1050
Logistic support	500
Training (125 person months)	350
Equipment and facilities overseas	450
TOTAL	$2350

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	750	-	750		
Estimated Fiscal Year 1982	2700	2000		1/15/82 to 1/14/83	North Carolina State U. Management Entity
Estimated through September 30, 1982	3450	2000	1450		Cornell University
Proposed FY 1983	1800	2400		1/15/83 to 1/14/84	Univ. of Hawaii
Estimated through Fiscal Year 1983	5250	4400	850		Texas A & M University
Proposed FY 1984	2350	Future Year Obligations	Estimated Total Cost	1/15/84 to 1/14/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: C. Haines

TITLE: Collaborative Research Support Program CRSP - Small Ruminants	FUNDS: Agriculture, Rural Development and Nutrition	PROPOSED OBLIGATION (In thousands of dollars): FY 84 3,600	LIFE OF PROJECT: Continuing
NUMBER: 931-1328 GRANT ☒ LOAN ☐	NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983, Annex V, Centrally Funded Programs, p.22	INITIAL OBLIGATION: FY 78 / ESTIMATED FINAL OBLIGATION: FY Continuing / ESTIMATED COMPLETION DATE OF PROJECT: FY Continuing

Purpose: To increase yields of meat, milk and fiber from sheep and goats in intensive crop/livestock systems in the humid tropics and in extensive grazing systems of the arid and semi-arid tropics.

Background and Progress to Date: On September 30, 1978, A.I.D. entered into a contract with and obligated funds to the University of California at Davis, to serve as the Management Entity (ME). The ME has the responsibility for managing the grant and providing subgrants to ten universities and Winrock International who participates in varied research projects. Following site selection, identification of problem areas, and the finalizing of contracts with host institutions, subgrants were made in mid-1979. The initial sites selected were Peru, Brazil, Kenya, and Indonesia. Later, a supplement from the Near East Bureau stimulated the establishment of a program in Morocco. Problem areas have been identified as: inadequate feed supplies, poor reproductive performance, cultural and economic constraints, disease, parasites, lack of coordination and integration in improvement of efforts, and general herd management.

Host Country and Other Donors: The collaborating institutions in Brazil (EMBRAPA); Peru (INIPA and INITA); Indonesia (BPT of AARD); Kenya (Ministry of Livestock Development); and Morocco (Hassan II University) all contribute research facilities, experimental animals, scientists, field laborers and expendable materials to project activities. In addition, Brazil is increasing the number of scientists employed in project programs, Peru is developing additional sites, Indonesia provides 100% matching funds for project costs, Morocco is expanding the number of active subprojects, and Kenya has increased support for in-country subprojects. CRSP contracts demand that U.S. collaborating institutions contribute 25% of total program costs. At present, contributions by U.S. institutions are estimated at 60% of total budgets.

Beneficiaries: LDC small holder sheep and goat producers in both intensive and extensive production systems will be the primary beneficiaries of this research program. Urban consumers of meat, milk and fiber products will be secondary beneficiaries.

FY 84 Program: Research subprojects will continue at all host country sites with U.S. and host country collaborators in place, vehicles and equipment procured, experimental materials and animals utilized, and information collections and analysis underway. At least two seminars and/or workshops-short courses will be conducted in each of the five host countries. An annual technical committee meeting (all principal investigators, site coordinators and a host country representative) will take place in the U.S. In-depth program evaluations will continue in effect for projects, regions, and overall goal objectives by an External Evaluation Panel. At least 25 host country technicians will continue to receive training in host country conditions and/or the U.S.

Major Outputs and A.I.D. Units:	All Years Units
U.S. Graduate students earning advanced degrees	15
Scientists of LDCs receiving graduate degrees in U.S.	36
Scientists of LDCs receiving graduate degrees in home country	42
LDC technicians trained in U.S. (non-degree)	24
Persons receiving on the job training in home countries	120
Technical short courses in host countries	20
Strengthened administrative capability in LDCs	5
Summary of trends in culture	20
Economic analyses of livestock production	10
Range management projects	15
Established management & breeding projects	25
Established animal health projects	10
Established year-round feeding programs	10
Established systems models	15

A.I.D. Financed Inputs in $000s:	FY 84
U.S. university staff and support	$1,875
LDC operating expenses	925
Training of LDC and U.S. scientists	525
Vehicles, equipment and materials	175
Evaluation committee review and reports	60
Contingency funds	40
TOTAL	$3,600

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	11,202	7,141	4,061		University of California/Davis
Estimated Fiscal Year 1982	3,200	4,323		3/31/82-4/15/83	Subgrantees: Texas A&M, University of
Estimated through September 30, 1982	14,402	11,464	2,938		Missouri, N.C. State, Washington State,
Proposed FY 1983	2,400	4,150		4/16/83-12/31/83	Texas Tech, Calif. Poly, Montana State,
Estimated through Fiscal Year 1983	16,802	15,614	1,188		Colorado State, U. of Calif, Utah State,
Proposed FY 1984	3,600	Future Year Obligations	Estimated Total Cost	1/01/84-12/31/84	Winrock International
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Norman Pease

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
CRSP - Pond Dynamics	Agriculture, Rural Development and Nutrition	FY 84 700	LIFE OF PROJECT Continuing	
NUMBER 936-4023 GRANT ☒ LOAN ☐ / NEW ☒ CONTINUING ☐	PRIOR REFERENCE None	INITIAL OBLIGATION FY 82	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To improve the efficiency of pond culture systems by bringing together the resources of LDCs and U.S. institutions into a long term comprehensive collaborative research program in pond aquaculture.

Background: In an earlier stage of Title XII program planning, the joint Research Committee (JRC) of the Board for International Food and Agricultural Development (BIFAD) recommended that fisheries and aquaculture would be an appropriate subject area for a Title XII CRSP intended to solve food, nutrition, and agricultural problems in the LDCs.

In recommending an Aquaculture CRSP, the JRC recognized that the vast potential for producing animal protein in pond culture systems has not been fully realized in LDCs. Many successful experiences of high yields with minimal inputs are documented. However, attempts to replicate the most successful and efficient systems have resulted in highly variable levels of production. Limited understanding of the principles and mechanisms of pond culture systems is a major factor constraining aquaculture production in LDCs.

Under this project physical, chemical, and biological mechanisms regulating the productivity of pond culture systems will be studied in a continuing series of field experiments conducted in each of the participating host countries. Experiments will be conducted using a standardized statistical design in each country and in so far as practicable, will be designed to investigate the same experimental treatments. A typical experiment will involve investigation of three to five levels of a treatment with three to four replicates of each treatment. Such an experimental design is required if valid statistical inferences are to be made about the impact of the treatments on the principles of pond systems. In each type of system investigated, the design further permits partitioning the variance of system performance into general and site specific components.

Host Country and Other Donors: Eight countries located in Africa, Asia and Latin America have been selected as host countries in which the full research program will take place. Participating U.S. universities will provide from their own resources at least the equivalent of 25% of the AID contribution.

Relationship of Project to A.I.D. Strategy: A.I.D.'s agricultural strategy worldwide is centered on increasing the capability of the LDCs to expand the production, utilization and distribution of food supplies to alleviate hunger and malnutrition. The techology developed under this project is designed to optimize the availability of food fish and increase employment in LDCs.

Beneficiaries: Primarily small scale fish farmers in LDCs and low income consumers who will have access to increased quantities of low-priced fish. In addition, employment opportunities will be expanded.

FY84 Program: Activities will be initiated to develop techniques to increase the production of aquacultural systems and to document these techniques for dissemination to LDCs. Research envisioned will encompass physiochemical studies of pond environment, biological studies, nutrient flow, energy dynamics, and pond simulation models.

Major Outputs	All Years
Results will be obtained to increase production in the following aquacultural systems:	
Small low intensity tropical pond systems	3
Cooler water tropical pond systems	3
Brackish water pond systems	2
High intensity tropical pond systems	2

A.I.D. Financed Inputs (In Thousand $)	FY84
Personnel	$300
Logistics	25
Commodities	25
Subgrants	350
TOTAL	$700

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981					
Estimated Fiscal Year 1982	650	250		8/1/82 - 7/31/83	Oregon State University
Estimated through September 30, 1982	650	250	400		
Proposed FY 1983	750	750		8/1/83 - 7/31/84	
Estimated through Fiscal Year 1983	1,400	1,000	400		
Proposed FY 1984	700	Future Year Obligations	Estimated Total Cost	8/1/84 - 3/31/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Norman L. Pease

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	LIFE OF PROJECT
Fisheries/Stock Assessment Research CRSP	Agriculture Rural Development and Nutrition	FY 84 500	Continuing
NUMBER 936-4026 GRANT ☒ LOAN ☐ NEW ☒ CONTINUING ☐	PRIOR REFERENCE None	INITIAL OBLIGATION FY 84	ESTIMATED FINAL OBLIGATION FY Continuing
			ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To develop and refine fishery management and exploitation practices thereby increasing harvesgs of food fish and employment in LDCs.

Background: In an analysis of fisheries sector needs in LDCs and the capabilities of U.S. universities to meet with those needs, it was found that stock assessment is a priority area. The concept of Stock Assessment includes the identification and delineation of species and stocks, the measurement of stock abundance, the collection of biological and economic information necessary for wise management, and the analysis and interpretation of the data to permit formulation of management plans.

Project Description: This project will be implemented under the mandate of Title XII of the Foreign Assistance Act, as amended, as Collaborative Research Support Agreement (CRSP) with the University of Maryland to complete the planning phase of the program. Under this agreement, a Planning Council will be selected and a manual will be distributed to potential collaborators in the LDCs. The manual will delineate the technical basis for the Stock Assessment program and the procedures to be used to select and implement the program. Following the completion of this document, representatives of several U.S. institutions will meet with LDC representatives at workshops to discuss and outline potential research areas. The final research plans will be reviewed by the Planning Council and A.I.D. and slections will be made for implementation. A final report will be submitted to the Joint Research Committee/ Board for International Food and Agricultural Development for their review and recommendations to A.I.D. concerning the selection of collaborators and the Management Entity for the 5-year CRSP program.

Beneficiaries: Primarily small-scale fishermen in LDCs and low income consumers who will have access to increased quantities of low-priced fish. In addition, employment opportunities will be expanded.

Host Country and Other Donors: Cooperating U.S. universities and LDC institutions will contribute to the success of this planning grant by providing facilities, and scientists and defraying local costs.

FY84 Program: This project will provide initial funding for a cooperative research program.

Major Outputs and A.I.D.	All Years Units
Planning manual	3
Workshops	1
Final program proposal	1

A.I.D. Financed Inputs (In Thousand $)	FY84
Personnel	$250
Logistics	50
Commodities	70
Sub grants	130
TOTAL	$500

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	–	–	–		
Estimated Fiscal Year 1982	350	100	250		University of Maryland
Estimated through September 30, 1982	350	100	250		
Proposed FY 1983	–	200	50		
Estimated through Fiscal Year 1983	350	200	50		
Proposed FY 1984	500	Future Year Obligations	Estimated Total Cost		
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Robert I. Jackson

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
Collaborative Research Support Program - CRSP - Peanuts	Agriculture, Rural Development and Nutrition	FY 84 2000		LIFE OF PROJECT Continuing
NUMBER 936-4048 GRANT ☒ LOAN ☐ NEW ☒ CONTINUING ☐	PRIOR REFERENCE None	INITIAL OBLIGATION FY 82	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To increase peanut production, utilization and improve research capability in LDCs through cooperative research between U.S. and LDC institutions.

Background: Peanuts are one of the basic food legume crops consumed by the poorest segment of the populations in Africa and Asia. This project will develop cooperative relationships between U.S. and about ten LDC institutions to attack constraints to increased production and utilization of peanuts. The immediate objectives will be to: 1) expand the body of knowledge on peanuts as part of small farmer production systems; 2) develop and test appropriate technologies and practices to improve productivity of principal production systems; 3) expand the level of competence of 20 LDC scientists to conduct research on peanut production systems through academic and on-the-job training; and 4) to improve peanut production capability in developing countries through the introduction and adoption of higher yielding, disease and insect resistant cultivars and improved technology. The peanut research planning will be completed by May 1982 and a detailed proposal submitted to A.I.D. A grant should be made by June 1982. Close coordination of planning of the activities has been maintained with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). ICRISAT is involved in all stages of program planning to avoid duplication and overlap of activities.

Host Country and Other Donors: All involved LDC institutions will provide personnel and facilities for conducting research in their respective countries.

Beneficiaries: LDC peanut research and production programs initially and the LDC farmer and urban poor will be ultimate beneficiaries worldwide. There is some technology available at U.S. institutions which could be transferred to some of the LDCs and made available for extension service programs as soon as this program becomes operational. In other cases, collaborative research will have to be conducted to determine optimum technology. For example, the development of improved peanut activities will take a considerably longer period.

FY 84 Program: Activities will be initiated on applied research problems dealing with solving constraints to increased production and utilization of peanuts, i.e., cropping systems on small LDC farms, and development of improved varieties. The U.S. institutions will become more deeply involved in cooperative research with LDC institutions.

Major Outputs and A.I.D. Units	All Years Units
Self-sustaining peanut production and breeding programs	15
LDC staff trained in production and processing	200
Worldwide network for peanut research	1
Cropping systems and packages of management practices	15
Multiple disease and insect varieties	60
Communication strategies for technology transfer	10
New selection criteria for crop breeding programs	10
High yielding varieties	80
New germplasm sources for disease and insect resistance in peanuts	15

A.I.D. Financed Inputs in $000s	FY 84
Personnel (275 person months)	$ 750
Logistic Support	450
Training (200 person months)	500
Equipment and facilities	300
TOTAL	$2,000

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		
Estimated Fiscal Year 1982	900	150		7/1/82-6/30/83	University of Georgia
Estimated through September 30, 1982	900	150	750		Texas A&M
Proposed FY 1983	1950	1500		7/1/82-6/30/84	Alabama A&M
Estimated through Fiscal Year 1983	2850	1650	1200		North Carolina State
Proposed FY 1984	2000	Future Year Obligations	Estimated Total Cost	7/1/82-6/30/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Wendell Morse

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
Farming Systems Support	Agriculture, Rural Development and Nutrition	FY 84 1300	LIFE OF PROJECT 7388	
NUMBER 936-4099 GRANT ☒ LOAN ☐ / NEW ☒ CONTINUING ☐	PRIOR REFERENCE FY 1982 - Annex V Centrally Funded Programs, p. 39	INITIAL OBLIGATION FY 82	ESTIMATED FINAL OBLIGATION FY 86	ESTIMATED COMPLETION DATE OF PROJECT FY 87

Purpose: To support the improved design, implementation and evaluation of farming systems research and extension (FSR/E) activities.

Background: In the last development decade, increasing attention has been paid to the role of small producers in the process of national development. As a group, these farmers have the potential to increase national food supplies significantly. Providing more appropriate technologies to small farmers promises great returns in increased food production, more efficient labor utilization, and higher rural incomes, as well as improved soil conservation and environmental protection. In order to assist small farmers more effectively, agricultural researchers must take careful account of these farmers' production and enterprise systems. Improved technologies must be adapted not only to the agro-ecological environments of these farmers but also to their particular socio-economic circumstances.

Farming systems research and extension has evolved in many countries and in many institutions in response to these concerns. Operationally, FSR/E involves an approach to agricultural research and technology generation that encourages research on farmers' fields and with farmers' participation. FSR/E examines resource use alternatives from the perspective of the whole farm operation rather than looking at just biological responses within the farm field. In small farm development programs, this perspective makes FSR/E more effective than traditional agricultural research.

Project Description: This project is designed to assist the collaborative efforts of USAID missions and LDCs at building effective and viable research and extension programs for limited resource farmers. This project aims to increase production within the complex, multi-crop production systems characteristic of small farm operations. To foster and coordinate FSR/E efforts involves both technical assistance and institution strengthening. Technical assistance under this project will provide collaborating USAID missions and LDCs those skills required at any stage in the project cycle: pre-project assessment, design, implementation, and evaluation. Short training courses in the fundamentals of FSR/E will strengthen the capacity of host country nationals both to perform this work and to institutionalize these methodologies. This project also facilitates communication among practitioners by organizing several informational activities, specifically, a newsletter, workshops, and an annotated bibliography, as well as a documentation center.

Host Country and Other Donors: Host country agencies and research institutions will contribute and collaborate in the design and implementation of small farmer research and extension systems.

Beneficiaries: The immediate beneficiaries of this project are FSR/E practitioners in the developing countries who learn the methods and approaches of farming systems research and extension. The ultimate beneficiaries of this FSR/E project are the limited-resource farmers who receive technological recommendations that build upon existing production and enterprise systems.

FY 84 Program: (1) Assistance will be provided to missions and LDCs to support FSR/E technology development. (2) Two each practitioner and administrator training courses will be held. (3) Four regional workshops will be held. (4) Four newsletter issues will be published. (5) One annotated bibliography will be published.

Major Outputs:	All Years Units
Project (design implementation support, evaluation)	50
Field guidelines	5
Workshops	23
Training Courses	24
Newsletter	19
Annotated Bibliography	5
Documentation Center	1

A.I.D. Financed FY 84 Inputs in $000	S&T	Mission Contribution	Total
Personnel	468	140	608
Logistics	391	80	471
Training	377	284	661
Publication	64	0	64
Total	1,300	504	$1804

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		To be determined
Estimated Fiscal Year 1982	1,892	250		9/15/82 - 7/15/84	
Estimated through September 30, 1982	1,892	250	1,642		
Proposed FY 83	400	2100		7/16/84 - 11/30/84	
Estimated through Fiscal Year 1983	2,292	2100	192		
Proposed FY 84	1,300	Future Year Obligations	Estimated Total Cost	12/1/84 - 11/30/85	
		3,796	7,388		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Douglas Butchart

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Mixed Farming/Livestock Systems Research	Agriculture, Rural Development and Nutrition	FY 84 800	LIFE OF PROJECT 4,850

NUMBER 936- 4133 GRANT ■ LOAN □ / NEW ☒ CONTINUING □	PRIOR REFERENCE FY 1983 Annex V, Centrally Funded Programs, p. 22	INITIAL OBLIGATION FY 84	ESTIMATED FINAL OBLIGATION FY 87	ESTIMATED COMPLETION DATE OF PROJECT FY 88

Purpose: To conduct applied research on animal production in mixed farming systems in lesser developed countries (LDCs).

Background: Research and development for small farms has been directed at cropping systems with virtually none of the work having included the important animal element. Integrated crop/ruminant livestock farming is the predominant type of agriculture in 62% of the countries where A.I.D. operates. This figure does not include swine, poultry and other small animals which are ubiquitous to subsistence agriculture. Ruminant livestock and small animals are an integral component of farming in LDCs. Crop farming is complimented by livestock which utilize cropping by-products and provide fertilizer, fuel, draft power, transportation and non-airable land utilization. Animals represent capital assets and security to the small farmer as well as diversifying income potential for diet improvement.

This new integrated animal farming project would direct applied research and training at the immediate production needs of LDC small farmers. All activities will collaborate and coordinate with the livestock/farming systems programs of relevant International Agricultural Research Centers' (IARCs) programs. This project will extend the IARC and other regional research networks down to the national program level in four countries.

The project would confine research application to farming systems in those LDCs where the most impact could be made. Once these areas are defined, plans for establishment of research stations could be initiated. Involvement of U.S. scientists and host country counterparts in applied research would proceed at these research stations. Training of foreign nationals at the research stations would initiate extension service operations. Extension agents would receive technical training from the project, while also serving as the transmitters of applicable research to the needs of the farmer.

Technical information will be provided to the Farming Systems Support Technical Assistance Project for broad distribution to farming systems activities worldwide.

Host Country and Other Donors: Four host countries would provide research facilities, land for establishment of research stations, scientists and technical personnel.

Beneficiaries: This project has worldwide application to both subsistence and small commercial farmers and animal producers who would be the primary beneficiaries. Urban populations will also realize benefits from increased farm productivity--resulting from project recommendations.

FY 84 Program: The research scientists would identify and select four applicable farming systems where integrated crop/animal production farming could be effectively initiated. Farm research stations would be developed where systems research would continue and extension training would begin.

Major Outputs and A.I.D. Units:	All Years Unit
Animal systems production techniques developed.	4

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (75 person months)	$ 400
Commodities, equipment and supplies	260
Logistical support	140
TOTAL	$ 800

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		To be determined
Estimated Fiscal Year 1982	-	-		-	
Estimated through September 30, 1982	-	-	-		
Proposed FY 1983	-	-			
Estimated through Fiscal Year 1983	-	-	-		
Proposed FY 1984	800	Future Year Obligations	Estimated Total Cost	12/31/83-12/31/84	
		4,050	4,850		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Richard E. Suttor

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	LIFE OF PROJECT
Agricultural Sector Planning and and Support	Agriculture, Rural Development and Nutrition	FY 84 400	Continuing

NUMBER 931-0060 GRANT ☒ LOAN ☐	NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 83, Annex V Centrally Fund Program, p. 22	INITIAL OBLIGATION FY 74	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To provide the assistance of agricultural economists and other agricultural specialists for project design activities, evaluations, special studies, country development strategy statements, and sector analyses to less developed countries through A.I.D. field missions.

Background and Progress to Date: This project has proven to be an effective means of deliverying high quality expertise well suited to meeting the Agency's needs for short term consultations in the subject area of agricultural economics. The cooperating agency has shown considerable flexibility in its ability to identify and provide short term consultants to meet mission requests. As a result field missions and their respective regional bureaus have continued to increase their demand for the technical support services available through this project. During the last two years specialists provided through this project undertook design, assessment, and evaluation tasks in Latin America, Asia, and Africa. Services provided include: technical reports for an agricultural sector loan paper in Honduras, a review of a Philippine marketing program, a feasibility study on a new herbicide application technique in El Salvador and Costa Rica, a cost-benefit analysis of Striga weed control methods in the Sudan; an evaluation of the Social Progress Indicators - El Salvador project; a report identifying and classifying the Agency's agricultural activities according to functional subject areas for the purpose of estimating additional technical assistance requirements for the Agency's agricultural program; a survey of future agricultural and rural development staffing requirements; a technical review of all country development strategy statements according to functional areas to determine the nature of the major interventions in the Agency's country specific agricultural program; an evaluation of the U.S.A.I.D./Honduras Small Farmer Farming Systems Research project; an evaluation of the "Small Farmer Credit: Profitability and Repayment" project; a pricing policy study in the Dominican Republic; a marketing study in the Dominican Republic used to assist mission needs to design their marketing PID; feasibility and design input for an agricultural sector planning project in Thailand; an intensive survey of secondary food crops in Indonesia; and a worldwide food policy survey to analyze the role that both policy and policy analysis play in the development process. Short-term services supporting the development of a proposed "Small Farmer Farming Systems Research and Extension" project were provided. Also, food policy specialists were sent to Tanzania and Senegal.

Host Country and Other Donors: Host country agricultural planning agencies and development institutions will provide facilities and staff to facilitate and complement the work of cooperating specialists.

Beneficiaries: This project will ultimately benefit the rural poor in LDCs through improved project design and evaluation activities. Primary beneficiaries are agricultural planning offices or agencies in LDC governments.

FY 84 Program: During FY 84 state of the art and case studies will be commissioned in support of Agency-wide agricultural development projects. Areas of study will include the benefit-cost incidence of small farms systems research, food policy, and the impact of mechanization on employment, draft power use, and production. Other studies will be commissioned as needs arise out of project development efforts.

Major Outputs:

	All Years Units
Project Design Activities	25
Case Studies	20
Evaluations	21
Special Projects, including country analyses	20

A.I.D. Financed Inputs in $000:	FY 84
Personnel (43 person months)	290
Logistical Support	90
Printing and other costs	20
Total	400

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	3068	2459	609		United States Department of Agriculture, Office of International Cooperation and Development
Estimated Fiscal Year 1982	485	609		10/1/82 - 9/30/83	
Estimated through September 30, 1982	3553	3068	485		
Proposed FY 1983	485	485		10/1/83 - 9/30/84	
Estimated through Fiscal Year 1983	4038	3553	485		
Proposed FY 1984	400	Future Year Obligations	Estimated Total Cost	10/1/84 - 9/30/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Richard E. Suttor

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Basic Planning - Water Resources	Agriculture, Rural Development and Nutrition	FY 84 300	LIFE OF PROJECT 1,600
NUMBER 931-0236.09 GRANT ■ LOAN ☐ NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 81, Annex V Centrally Funded Programs,	INITIAL OBLIGATION FY 79	ESTIMATED FINAL OBLIGATION FY 85 / ESTIMATED COMPLETION DATE OF PROJECT FY 86

Purpose: To assist in the determination of alternative methods of problem analysis and the data requirements for an improved understanding of water use in the LDCs, and to provide technical assistance to AID/W, USAID missions and the various LDC governments in analyzing policies for water resources development and utilization.

Background and Progress to Date: The project has concentrated its efforts in four countries Thailand, India, Pakistan and Egypt. The first stage of the Thailand analysis, a study of five tank irrigation systems, has been completed; the second stage is focusing on four tanks and two lift irrigation systems. A linear programming analysis of the effects of output and resource pricing policies on farm income in the Kafr el Sheihk site in Egypt is nearly complete. Data collection from several tank irrigation sites in Tamil Nadu, India has begun; The data analysis will have three major components: (1) An estimation of returns from investments in tank rehabilitation; (2) A description and analysis of tank operations and water destribution; (3) An identification of secondary impacts. Data from a 2,000 farm sample was used to estimate profit functions for several sizes of irrigated farms in three regions of Pakistan. A working paper on the interaction of watercourse maintenance, tubewells and intra-watercourse water trading and rental has been submitted for publication. Data is being gathered from 20 watercourses in the Punjab region of Pakistan to test hypotheses specified in the working paper. The project also funded a member of a team to help the mission identify high priority investments in the Pakistani irrigation systems. Several other papers were completed, including a literature survey of benefit/cost studies of irrigation projects in the Western Sahel, a critical review of the applicability of economic surplus measures to benefits from irrigation projects, and a review draft of a major paper to identify the priority issues in irrigation development and distribution.

Host Country and Other Donors: Host countries include Egypt, India and Thailand. The World Bank, ICRISAT and other donors are involved in the analysis of water resource problems.

Beneficiaries: Small farmers in LDCs are the ultimate beneficiaries. Intermediate benefits will accrue to LDC planning institutions and USAID missions in the form of improved project planning, design, implementation, and evaluation.

FY 84 Program: Analysis of the data from the tank irrigation sites in Tamil Nadu will be completed. Further study of small irrigation systems, the scope of which will be determined by the end of 1982, will be undertaken. Workshops and document distribution to disseminate project findings will be sponsored.

Major Outputs:

	All Years Units
Reports on case studies	12
Synthesis and issues papers	8
Seminars and Workshops	10
Short term technical assistance	6

A.I.D. Financed Inputs: in $000:	FY 84
Personnel (30 person months)	200
Commodities	25
Other Costs	75
Total	300

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated
Through September 30, 1981	541	400	141
Estimated Fiscal Year 1982	87	102	
Estimated through September 30, 1982	628	502	126
Proposed FY 1983	250	200	
Estimated through Fiscal Year 1983	878	702	176
Proposed FY 1984	300	Future Year Obligations	Estimated Total Cost
		422	1,600

Funding Period
4/1/82 - 3/31/83
4/1/83 - 3/31/84
4/1/84 - 3/31/85

Principal Contractors or Agencies
Colorado State University (CSU)
University of Minnesota (UM)

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Richard E. Suttor

TITLE Agricultural Policy Analysis	FUNDS Agriculture, Rural Development and Nutrition	PROPOSED OBLIGATION (in thousands of dollars) FY 84 700	LIFE OF PROJECT 5,290
NUMBER 936-4084.01 GRANT ☒ LOAN ☐ NEW ☒ CONTINUING ☐	PRIOR REFERENCE FY 82, Annex V Centrally Funded Program p.38	INITIAL OBLIGATION FY 83	ESTIMATED FINAL OBLIGATION FY 87 / ESTIMATED COMPLETION DATE OF PROJECT FY 88

Purpose: Improve knowledge and understanding of LDC and AID decision-makers about key policy issues and constraints affecting agricultural and rural development in LDCs.

Background and Progress to Date: Agricultural policy is important to AID for two reasons. Policies of the host country are often crucial to the success or failure of AID funded agricultural projects. More importantly, these policies are very significant determinants of the performance of LDC economies, which are usually dominated by agriculture.

The need for appropriate policies is indisputable but obtaining appropriate policies in each country is more difficult. AID can help the LDCs do a better job analyzing their own policies and planning agricultural development. This means working with and assisting LDC economists, other social scientists and other professionals to analyze their policies, devise policy changes when appropriate, and effectively implement these policies. In addition USAIDs must also understand the agricultural policy situations in their respective countries in order to be able to plan their own strategies develop projects and program PL480 funds. This project will strengthen USAIDs ability to address agricultural policy questions as well as provide assistance to selected countries to strengthen agricultural policy analysis and planning systems.

Host Country and Other Donors: Host countries will contribute to the project cost by providing professional counterparts and facilities, short-term consultants and design teams. Other donors, like the World Bank and its regional affiliates, have developed and are implementing relatively large scale projects designed to provide financial support to national agricultural sector planning entities. A specific example is the recently inaugurated World Bank project designed to establish and strengthen sector planning agencies in several African countries. The Organization of American States, through its Inter American Institute of Agricultural Sciences, has established and will maintain an agricultural sector planning network for the Latin American and Caribbean Region.

Beneficiaries: Farmers and consumers in the less developed countries will benefit from better performance of the agricultural sector. LDC policy analysts will be the intermediate beneficiaries.

FY 83 Program: Develop strategies for strengthening agricultural policy analysis and planning systems in four countries; provide assistance in agricultural price and income analysis in four countries; provide assistance in agricultural resource and production analysis in three countries.

Major Outputs:

	All Years Unit
Increased agricultural policy analysis capability in twenty countries	20
Reports for world-wide distribution	4
Increased USAID policy knowledge	10

A.I.D. Financed Inputs in $000:	FY 82
Personnel (90 person months)	$ 600
Commodities	50
Other Costs	50
Total	$ 700

U.S. FINANCING (in thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		to be determined
Estimated Fiscal Year 1982	-	-			
Estimated through September 30, 1982	-	-	-		
Proposed FY 1983	490	350		7/1/83 - 6/30/84	
Estimated through Fiscal Year 1983	490	350	130		
Proposed FY 1984	700	Future Year Obligations	Estimated Total Cost	7/1/84 - 6/30/85	
		4,100	5,290		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Richard E. Suttor

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
Agricultural Data Management	Agricultural Rural Development and Nutrition	FY 84 500	LIFE OF PROJECT 4100	
NUMBER 936-4116 GRANT ☒ LOAN ☐ / NEW ☒ CONTINUING ☐	PRIOR REFERENCE None	INITIAL OBLIGATION FY 84	ESTIMATED FINAL OBLIGATION FY 88	ESTIMATED COMPLETION DATE OF PROJECT FY 89

Purpose: Assist developing countries and USAIDs in the improvement of quality and utilization of recurrent agricultural data.

Background and Progress to Date: The need for appropriate agricultural data and information in all countries is indisputable. This is particularly true in less developed countries due to the limited financial and human resources available for agricultural data collection, processing, and analysis. To be useful though, information must be timely, reliable, and relevant to an identified problem or decision at hand. The problem is to determine the optimum allocation of these limited resources to provide the best possible agricultural data and statistics for planning and decision making.

There are several types of agricultural data, including recurrent agricultural data, capacity data, and data generated by research institutions. It appears that the greatest demand from LDCs and missions will be for technical assistance in collecting and processing recurrent data. Therefore this project will initially focus on recurrent data. Recurrent agricultural data are collected every year or season, and include crop yields, area planted, area harvested, livestock numbers and production, farm income, and labor use. Recurrent agricultural data tend to fluctuate more widely than the fairly stable trends of capacity data, that data which measure the potential rather than actual performance of agriculture. Both types of agricultural data are important, however, the collection techniques and the requirements for rapid processing and analysis are very different for recurrent than for capacity data. Because of these important distinctions and the need to limit size and complexity, this project is initially confined to the collection, processing and analysis of recurrent agricultural data.

This project consists of three major components. (1) Initially there will be a literature review and an evaluation of other available documents in order to create a comprehensive integrated body of knowledge concerning information systems and agricultural data needs in LDCs. This body of knowledge will continually be supplemented throughout the project as more information is collected and the in-country case studies are analyzed. (2) In cooperation with the Regional Bureaus and USAIDs, S&T/AGR will select up to 20 countries for diagnosic analyses of their current agricultural data systems and needs. This will be accomplished through short-term technical assistance financed by S&T/AGR. (3) Out of the 20 diagnostic analyses, four case studies, one in each region, will be identified collaboratively by S&T/AGR, Regional Bureaus, and USAIDs. These will be in-depth studies on data collection, processing and analysis for recurrent agricultural data.

During the implementation of the project if it is found that technical assistance for other types of data, such as capacity data or data and information from research institutions, are in great demand then add-ons to this project will be made in order to provide the analytic expertise needed to provide technical assistance in these areas.

Host Country and Other Donors: Host countries will contribute to the project cost by providing facilities and professional counterparts to facilitate and complement the work of cooperating specialists.

Beneficiaries: Consumers, small commercial and subsistence famers will benefit from more efficient agriculture.

FY 84 Program: 1. Conduct review and evaluation of appropriate documents to develop methodologies to be tested in four LDCs. 2. Initiate case studies in at least two different regions. 3. Provide technical assistance to USAID missions and host countries where appropriate.

Major Outputs	All Years Units
Case studies	4
Short term technical assistance	20
Reports on case studies	4
Country diagnosis documents	20
Seminars	2

A.I.D. Financed Inputs in $000	FY 84
Personnel (48 pm)	320
Transportation	75
Supplies and Equipment	50
Other Costs	55
	500

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		to be determined
Estimated Fiscal Year 1982	-	-	-		
Estimated through September 30, 1982	-	-	-		
Proposed FY 1983	-	-	-		
Estimated through Fiscal Year 1983	-	-	-		
Proposed FY 1984	500	Future Year Obligations 3600	Estimated Total Cost 4100	1/1/84 - 12/31/84	

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Richard Sutton

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Economics of Food Security	Agriculture, Rural Development and Nutrition	FY 84 500	LIFE OF PROJECT 3000
NUMBER 931-4117 GRANT ☒ LOAN ☐ / NEW ☒ CONTINUING ☐	PRIOR REFERENCE None	INITIAL OBLIGATION FY 83	ESTIMATED FINAL OBLIGATION FY 87 / ESTIMATED COMPLETION DATE OF PROJECT FY 88

Purpose: To help less developed countries (LDCs) formulate strategies to maintain a stable food supply.

Background: An important objective of LDC governments is to dampen fluctuations in the available supplies and retail prices of food. Domestic production can change a great deal from one year to the next because of floods, drought or other natural causes. Imports may or may not be adequate to compensate for unexpected production shortfalls. Furthermore, the international markets are subject to a great deal of uncertainty; if a bad harvest coincides with a period of unusually high prices in the international markets, the country may not be able to purchase enough food imports to maintain a stable supply for consumers.

There are a number of ways to cope with the food insecurity problem. A common method is to maintain higher levels of food stocks within the country, either through government operated storage programs or incentives to the private sector. Another is to make domestic production more secure through irrigation and other investments in agriculture. Improvement in port facilities, internal transport and grain handling systems facilitate timely imports of grain to meet emergency situations. Financial risks can be controlled by maintaining greater foreign exchange reserves, hedging in the futures markets, establishing long term food aid commitments, or through IMF or other standby commitments.

This project will evaluate the full range of alternatives for attaining food security. A general evaluation can be developed by reviewing the literature and conducting analyses based on secondary data. With this background, short term consultant services will be provided to selected LDCs to help them assess their food security strategies and to test the practicality of the general evaluation. This project will be closely coordinated with Food Security Management (936-5316), which deals with logistal management of grain marketing and storage and related information systems.

Host Country and Other Donors: The World Bank, Food and Agriculture Organization, and International Food Policy Research Institute sponsor research and technical assistance in the general area of food security. Host country analysts and planners will collaborate in the assessments of their food security strategies.

Beneficiaries: Consumers in the LDCs.

FY 84 Program: A general evaluation of alternatives for attaining food security will be completed. Short term assistance will be provided to begin the assessments of food security strategies in four countries.

Major Outputs:

	All Years Unit
Country food security assessments	20
General evaluation of alternative strategies	1
Seminars and Workshops	4

A.I.D. Financial Inputs in $000:

	FY 84
Personnel (60 person months)	$ 400
Training	75
Other Costs	25
Total	$ 500

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-			to be determined
Estimated Fiscal Year 1982	-	-			
Estimated through September 30, 1982	-	-			
Proposed FY 1983	400	100		6/30/83 - 6/29/84	
Estimated through Fiscal Year 1983	400	100	300		
Proposed FY 84	500	Future Year Obligations	Estimated Total Cost	6/30/84 - 6/29/85	
		2,100	3,000		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Robert I. Jackson

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Seed Program and Industry Development	Agriculture, Rural Development and Nutrition	FY 84 425	LIFE OF PROJECT Continuing
NUMBER 931-0203 GRANT ■ LOAN □ / NEW □ CONTINUING ■	PRIOR REFERENCE FY 1983, Annex V, Centrally Funded Programs, p.22	INITIAL OBLIGATION FY 58	ESTIMATED FINAL OBLIGATION FY Continuing / ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To provide technical assistance in seed program and industry planning implementation and evaluation leading to a seed production industry capable of meeting LDC farmers' needs for improved seeds.

Background and Progress to Date: Mississippi State University has developed a comprehensive international seed technology program which has had A.I.D. support since 1958. The project responds to the need for materials, techniques, methodologies, and technical assistance required to design and to implement responsible seed production and supply systems capable of meeting LDC farmers' needs for improved seed. This involves providing technical assistance for LDCs on all phases of seed technology including seed production, harvesting, drying, processing, quality control and distribution. The project conducts in-country training courses and responds to requests for information on a continuous basis. The socioeconomic benefits to LDCs of efforts in crop breeding and improvement are directly proportional to the quantities of improved seed multiplied, distributed and planted by their farmers. The quality and orientation of a country's agriculture are closely related to the availability of improved seed. As of April 1981, there have been 206 consultative visits to 53 countries for 5,529 person days, 31 in-country training courses involving 946 participants, 2,266 person days devoted to responding to technical inquiries for use by LDC technicians. As a result of these activities, 26 seed industries have been established in LDCs and 23 others assisted in their development. There have been 173 graduates from 20 countries from the Mississippi State University Agronomy Seed Technology degree program. There have been 148 participants from 20 countries in non-degree programs in Agronomy Seed Technology at Mississippi State University. These trained personnel have returned to their home countries where they are contributing to the development of local seed industries. There have been 403 participants from 65 countries attend the Annual Short Course in Seeds given by Mississippi State University. The Industry Council for Development provides an effective mechanism for establishing direct linkages between commercial seed firms in LDCs and appropriate agencies in the LDCs. A.I.D.'s service project with the Industry Council support an effort designed to establish, strengthen and utilize such linkages.

Host Country and Other Donors: The host countries provide facilities for training/workshops, local transportation, seed processing equipment and seed analysis laboratories. IARCs provide facilities for training in seed production at the Centers' sites.

Beneficiaries: Small and medium farmers in developing countries, whose access to improved seed increases.

FY 84 Program: Provide technical assistance for approximately ten countries including ones not previously served and ones requesting follow-up work in order to improve efficiency of seed processing. Hold the summer training course in seed processing for 30 participants. Continue graduate training program.

Major Outputs and A.I.D. Units:	All Years Units
Provided technical assistance in seed industry development and operation in LDCs (consultancies).	300
Training programs.	47
Provided information in seed technology (responses and publications).	3917
Developed appropriate technology essential to seed production and seed operations in LDCs.	33

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (60 person months)	$ 215
Logistics	170
Other Costs	40
TOTAL	$ 425

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	2,844	2,697	147		
Estimated Fiscal Year 1982	366	370		4/1/82-3/15/83	Mississippi State University
Estimated through September 30, 1982	3,210	3,067	143		
Proposed FY 1983	390	400		3/16/83-3/15/84	
Estimated through Fiscal Year 1983	3,600	3,467	220		
Proposed FY 1984	425	Future Year Obligations	Estimated Total Cost	3/16/84-3/15/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Robert I. Jackson

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Spring x Winter Wheat	Agriculture, Rural Development and Nutrition	FY 84: 150	LIFE OF PROJECT: 4,125
NUMBER 931-0621 GRANT ☒ LOAN ☐ NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983, Annex V, Centrally Funded Programs, p.22	INITIAL OBLIGATION FY 76	ESTIMATED FINAL OBLIGATION FY 87 / ESTIMATED COMPLETION DATE OF PROJECT FY 88

Purpose: To develop improved wheat varieties with disease, insect and moisture stress resistance for LDC farmers.

Background and Progress to Date: Wheat is the most widely adapted and the most efficient cereal crop source for calories and protein. Introduction of the semi-dwarf, day-length insensitive characters has made spring type wheat a major food crop in many subtropical LDCs as opposed to being a crop restricted to production in temperate zones. This benefit has made its impact on all LDC farmers who grow wheat. These improvements have been less spectacular in winter type wheats grown in less productive environments such as the Middle East, North Africa, Northern Asia and certain Latin and South American areas. The project is designed to improve the quality of life of people inhabiting these areas through introduction of the spring wheat technological breakthroughs into less favorable winter wheat growing areas. To date, systematic crossing between winter and spring cultivars has greatly increased the genetic potential for both winter and spring wheats. The International Maize and Wheat Improvement Center's (CIMMYT) International Winter Spring Wheat Screening Nursery (IWSWN) has an excellent way to disseminate germplasm to LDCs. The strong breeding program at Oregon State University has provided an ideal milieu within which to train personnel from the LDCs. Currently 32 LDC students have been or are now participating in the research program. A world-wide network of cooperators has been formed which insures that LDCs can obtain and effectively use the widely adapted wheat breeding materials developed under this program.

Host Country and Other Donors: LDC collaborators provide personnel and facilities for growing the IWSWN. There is close joint collaboration with CIMMYT and the University of Nebraska.

Beneficiaries: Small farmers and consumers in developing countries will benefit worldwide.

FY 84 Program: USAID/Morocco is planning to increase its activities on wheat production. The Spring x Winter Wheat project can and should play an important role for Morocco's activities by providing germplasm which will be tolerant/resistant to diseases, insects and drough. Likewise, the Contractor will provide similar germplasm to other wheat producing LDCs. Training will be offered to LDC wheat scientists at the graduate degree level.

The wheat nurseries which are put together by the Contractor will be continued to be sent to cooperating LDCs.

Major Outputs and A.I.D. Units:	All Years Units
Germplasm and computer information bank	1
New spring x winter wheat crosses for genetic diversity	180,000
New breeding lines with superior nutritional properties	100
Early generation breeding populations	30
Screening nursery (IWSWSN 1-6)	6
Cropping system with management practices for water conservation	10
Trained LDC scientists, graduate programs	24
Trained LDC scientists, in-country short course graduates	200

A.I.D. Finances Inputs in $000s:	FY 84
Personnel (20 person months)	65
Travel and per diem	20
Equipment and supplies	10
Training costs (60 person months)	55
Total	$150

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	2140	1664	476		Oregon State University
Estimated Fiscal Year 1982	835	500		9/15/82-3/31/84	
Estimated through September 30, 1982	2975	2164	811		
Proposed FY 1983	250	550		4/1/84-11/30/84	
Estimated through Fiscal Year 1983	3225	2664	561		
Proposed FY 1984	150	Future Year Obligations: 750	Estimated Total Cost: 4125	12/1/84-4/30/85	

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: C.W. Collier

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Plant and Seed Materials	Agriculture, Rural Development and Nutrition	FY 84: 100	LIFE OF PROJECT: Continuing
NUMBER 931-0829 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983 Annex V, Centrally Funded Programs, p. 22	INITIAL OBLIGATION FY 55	ESTIMATED FINAL OBLIGATION FY Continuing / ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To provide experimental quantities of seed and plant materials and technical information on germplasm to developing countries.

Background and Progress to Date: Agricultural production in many developing countries is dependent on cultivars that are indigenous or introduced and have not been improved due to the lack of a broad germplasm base. There continues to be useful plants discovered which can be successfully introduced into other countries. This project provides the service of collection, maintenance, quarantine and distribution of plant and seed materials. The availability of new plant and seed materials is of great importance in increasing agricultural production in developing countries. A free exchange of agricultural source information and plant seed materials is crucial to the development of new agricultural potentials. The Agriculture Research Service Germplasm Resource Laboratory of the U.S. Department of Agriculture's Science and Education Administration (USDA-SEA), is the primary agency responsible for collection, maintenance, quarantine, increase and exchange of needed plant and seed materials. Since this project started, over 100,000 varieties or selections of virtually every known economic crop have been sent to over 100 different countries upon request. This represents more than 4,000 shipments--which is a significant contribution to developing country agriculture programs.

Host Country and Other Donors: None

Beneficiaries: Farmers, agriculturists and researchers in developing countries who grow crops supported under this project.

FY 84 Program: Continue activities in providing plant and seed materials upon request.

Major Outputs and A.I.D. Units:

	All Years Units
Samples of seed and plant materials sent to developing countries	110,000

A.I.D. Financed Inputs in $000s

	FY 84
Personnel (30 person months)	34
Logistics	25
Commodities	8
Other Costs	33
TOTAL	$100

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	1,324	1,173	151		Agricultural Research Service U.S. Department of Agriculture
Estimated Fiscal Year 1982	150	150		9/30/82-9/29/83	
Estimated through September 30, 1982	1,474	1,323	151		
Proposed FY 1983	100	151		9/30/83-9/29/84	
Estimated through Fiscal Year 1983	1,574	1,474	100		
Proposed FY 1984	100	Future Year Obligations	Estimated Total Cost	9/30/84-9/29/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Robert I. Jackson

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
Control of Barley Diseases	Agriculture, Rural Development and Nutrition	FY 84: 150		LIFE OF PROJECT: 1,471
NUMBER 931-1318 GRANT ☒ LOAN ☐ NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983 Annex V, Centrally Funded Program, p.22	INITIAL OBLIGATION FY 78	ESTIMATED FINAL OBLIGATION FY 84	ESTIMATED COMPLETION DATE OF PROJECT FY 85

Purpose: To increase the yield of barley by increasing the resistance to diseases in the developing countries.

Background and Progress to Date: Barley is grown on over 15 million hectares in the developing countries and the annual production is over 17 million metric tons. Barley is grown for food in many areas of the world, especially in areas which have a marginal environment, e.g., low rainfall, saline soils and short seasons. It is a major food source for the poorest people in arid developing countries. Major constraints to increased production include yield losses caused by the major diseases of barley, particularly in the developing countries. Although few reliable figures are available, diseases can and do reduce yields 5 to 20%, and in some total crop losses may occur. Disease resistance combined with improved agronomic types can result in an increase of 100% productivity - this would greatly benefit the subsistence farmers who rely on barley for food. The major objectives of this project are to: (1) identify different sources of resistance to the major diseases of barley in LDCs; (2) develop recurrent selection populations (RSPs)* with multiple resistance to different diseases; (3) assist the International Agriculture Research Centers (IARCs) to establish serodiagnosis programs for the detection of barley stripe mosaic virus; and (4) to develop a simple screening procedure for use with barley scald disease and other diseases.

Host Country and Other Donors: Host country institutions provide facilities, scientists and labor for conducting 22 collaborative disease screening trials in 9 LDCs.

Beneficiaries: Small farmers and consumers of barley in developing countries will benefit.

FY 84 Program: Activities will continue in (1) determining different sources of resistance involving major diseases; (2) developing populations with major and minor gene resistance to specific diseases; (3) combining special populations having specific agronomic traits with disease resistance populations; (4) training barley research workers; (5) working closely with CIMMYT, ICARDA and National Barley Breeding Programs in developing countries.

*RSPs contain resistance genes for the major diseases. Selections of the most resistant and agronomically acceptable barley types will be repeated in several cycles of recombinations. The RSPs will be grown in the LDCs, selections will lead to broad based resistances to major diseases of barley which will be effective in developing resistant barley cultivars for the LDCs.

Major Outputs and A.I.D. Units:

	All Years Units
Determine sources of resistance to barley diseases	15
Cross lines with multiple disease resistance	25
Distribute uniform disease screening nurseries to LDCs	22
Train LDC researcher workers	30
Develop a procedure for serodiagnosis and gene transfers	1

A.I.D. Financed Inputs in $000s:

	FY 84
Personnel (57 person months)	$ 60
Travel and Per Diem	20
Equipment and Supplies	20
Training Costs	50
TOTAL	$ 150

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	821	768	53		Montana State University
Estimated Fiscal Year 1982	400	255		1/1/82-12/31/82	
Estimated through September 30, 1982	1,221	923	298		
Proposed FY 1983	100	255		1/1/83- 6/30/84	
Estimated through Fiscal Year 1983	1,321	1,252	69		
Proposed FY 1984	150	Future Year Obligations	Estimated Total Cost	7/1/84-2/1/85	
		0	1,471		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: John M. Yohe

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Agricultural Production Technical Assistance	Agriculture, Rural Development and Nutrition	FY 84: 350	LIFE OF PROJECT: Continuing
NUMBER 936-4109 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983 Annex V, Centrally Funded Programs, p. 22	INITIAL OBLIGATION FY: 81	ESTIMATED FINAL OBLIGATION FY: Continuing / ESTIMATED COMPLETION DATE OF PROJECT FY: Continuing

Purpose: To provide technical/professional backstopping to Regional Bureaus (RBs), USAIDs and LDCs in the fields of crop production, utilization technology, livestock production and management, pest management and proper pesticide useage.

Background and Progress to Date: This project is a continuation of three former projects (Livestock Production Capability, Pest Management Capability, and Crop Production and Utilization Technical Assistance) which provided expertise in animal health, animal nutrition, specialists in poultry management and livestock management, expertise in integrated pest management; proper pesticide use; cereal grain legume and oilseed production; and crop utilization technology to RBs, A.I.D. missions and LDC country programs worldwide. The expertise available under these projects have been extensively used to provide assistance in solving LDC crop, poultry and livestock production problems; and also assistance to A.I.D. missions for in-country project design and evaluation. This project will use expertise from the U.S. Department of Agriculture's Agriculture Research Service (USDA/ARS), U.S. Department of Agriculture's Animal and Plant Inspection Service (USDA/APHIS) as well as knowledge, technology, and breeding materials developed under the Bureau for Science and Technology and A.I.D. funded research grants/contracts with universities; from research conducted by USDA and International Agricultural Research Centers (IARCs) to assist LDC farmers to increase farm productivity and farm incomes.

Host Country and Other Donors: The host countries will provide various levels of support services for office space, laboratory and field facilities.

Beneficiaries: Scientists, extension personnel and small farmers in LDCs worldwide.

FY 84 Program: Continue backstopping Office of Agriculture, Bureau for Science and Technology (S&T/AGR), RBs and USAIDs. Expertise in all phases of livestock development, including feeding, breeding, disease control, herd management and marketing will be provided upon request. Assistance is available for development of integrated pest management policy and programs. The pesticide information system is available for assisting in the selection and recommendations of environmentally safe pesticides under A.I.D. Regulation 16. Technical Assistance is available for all phases of crop production and utilization. In-country training programs, workshops, and seminars will be provided by the project. One postharvest food loss specialist and one pest management specialist will be provided to S&T/AGR/AP.

Major Outputs and A.I.D. Inputs:	All Years Units
Assistance to missions, RBs or country programs (project design & evaluation and technical assistance)	33
Analytical and field testing support	3
In-service training of LDC personnel	16
Training (short courses & workshops)	7
Publications	75
Monitoring of S&T livestock & crop related projects (projects/year)	8

A.I.D. Financed Inputs $000:	FY 84
Personel (36 person months)	$130
Travel	35
Consultants	40
Training (45 months)	50
Workshops & small activities	95
TOTAL	$350

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	350	50	300		U.S.D.A.
Estimated Fiscal Year 1982	600	400	500	9/30/82-9/30/83	
Estimated through September 30, 1982	950	450	500		
Proposed FY 1983	325	500	325	9/30/83-9/30/84	
Estimated through Fiscal Year 1983	1,275	950	325		
Proposed FY 1984	350	Future Year Obligations: Continuing	Estimated Total Cost: Continuing	10/1/84-9/30/85	

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: John M. Yohe

TITLE International Soybean Development	**FUNDS** Agriculture, Rural Development, and Nutrition	**PROPOSED OBLIGATION** (In thousands of dollars) FY 84 600	LIFE OF PROJECT 6,000
NUMBER 936-4132 GRANT ☒ LOAN ☐	NEW ☒ CONTINUING ☐	**PRIOR REFERENCE** None	INITIAL OBLIGATION FY 84 / ESTIMATED FINAL OBLIGATION FY 89 / ESTIMATED COMPLETION DATE OF PROJECT FY 90

Purpose: To develop and exploit the potential of soybean edible protein and oil for diets of rural and urban poor worldwide in LDCs.

Background and Progress to Date: This is a continuation of research activities on soybeans initiated in FY 1973 by the University of Illinois. Soybeans offer a greater potential for lessening the LDC protein and calorie shortage than any other grain legume. Experience with this project indicates that the soybean is a far more widely adaptable legume than was previously thought. Satisfactory yields can be obtained over a wide range of agroclimatic conditions following food management and cultival practices. It is now known that the soybean can be developed to be a higher yielding crop at tropical latitudes. Cultivars have been developed which exhibit disease resistance. Pathogens that affect seed quality and germination have been intensively studied through cooperative efforts of the Universities of Illinois and Puerto Rico. Through interdisciplinary work between plant pathology and entomology, excellent progress has been made in the development of model insect control management systems. A key aspect of the improvement of production technology is the expansion of production and use of Rhizobium japonicum to improve soybean nodulation in the tropics. Rsearch is underway to extend investigations from the lab to the LDC farmers's field. Computerized information systems are utilized in the management and dissemination of knowledge about soybean production, protection and utilization. 2433 requests were responded to between 1975-1981. A publication series, with 22 titles published, has been an extremely useful means of informing soybean workers about a wide range of subjects. The INTSOY quarterly newsletter published in English, French, and Spanish is distributed to over 1,500 agriculturalists worldwide. To date the project has been instrumental in identifying and introducing the varieties and production technology that has led to average increase of up to 120,000 acres in Egypt, 1,500,000 acres in India, 50,000 acres in Ecuador, 3,000 acres in Peru, 10,000 acres in Sri Lanka and 200,000 acres in Thailand. Countries are improving their soybean research capacity, as the soybean breeders are becoming more active in the international INTSOY soybean testing network. Currently scientists from 150 locations in 70 countries are collaborating in the varietal testing network.

The immediate objectives of this new project will be to develop a program which will: 1) expand the body of knowledge on soybeans as part of small farmer production systems; 2) develop and test appropriate technologies and practices to improve productivity of target production systems; 3) expand the level of competence of LDC scientists to conduct research on soybean production systems; 4) improve soybean production capability of developing countries and to develop and test appropriate technologies and practices for increased farm level and commercial level utilization of soybeans. This activity holds great potential for local agribusiness employment opportunities.

Host Countries and Other Donors: LDC collaborators in cooperating countries provide the personnel and the facilities for on site adaptive research. There is close joint collaboration with the International Institute of Tropical Agriculture (IITA), the Asian Vegetable Research and Development Center (AVRDC), the University of Puerto Rico and the University of Illinois.

Beneficiaries: Small farmers and consumers in developing countries will benefit worldwide.

FY 84 Program: Collaborative research sites will be identified and established in 2-3 regions. Research will continue on developing new genetic materials and improving the knowledge base for disease, insect, and weed control of soybeans produced under tropical environments.

Major Outputs and A.I.D. Units:	All Years Units
Collaborative LDC research sites	3
Improved varieties for LDCs	15
Integrated disease & insect control systems	3
Training short courses	10

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (156 person months)	$ 470
Logistics	80
Other costs	50
TOTAL	$600

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	–	–	–		
Estimated Fiscal Year 1982	–	–	–	–	
Estimated through September 30, 1982	–	–	–		
Proposed FY 1983	–	–			
Estimated through Fiscal Year 1983	–	–	–		
Proposed FY 1984	600	Future Year Obligations	Estimated Total Cost	12/1/83-11/30/84	
		5,400	6,000		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Bernard Pollack

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
Root and Tuber Technical Assistance	Agriculture, Rural Development and Nutrition	FY 84 500	LIFE OF PROJECT 3,000	
NUMBER 931-4134 GRANT ☒ LOAN ☐ / NEW ☒ CONTINUING ☐	PRIOR REFERENCE None	INITIAL OBLIGATION FY 84	ESTIMATED FINAL OBLIGATION FY 88	ESTIMATED COMPLETION DATE OF PROJECT FY 89

Purpose: To increase yields of roots and tubers through improved varieties, production and management practices.

Background: The most important Root and Tuber Crops (RTCs) in tropical developing countries are cassava, potatoes, sweet potatoes, yams and aroids. One third of the population of tropical developing countries - primarily the poor - depend on these crops as a staple food and 95% of production is consumed directly by the producer. Cassava is the most important RTC in terms of total production in the tropics (41% of total in developing countries), although potatoes (if temperate production is included) is the most important on a worldwide basis with annual production twice that of all other edible root and tuber crops combined. Cassava production is 41% of total production of all RTCs in developing countries, sweet potatoes 34%, potatoes 15%, yams 7%, and aroids less than 3%. Cassava is widely adapted, drought resistant, tolerates poor soils and, even under conditions of poor management with few inputs, is a reliable crop for poor farmers.

Until recently, little attention has been given to RTCs by governments of developing countries, international aid agencies, or agricultural researchers.

This project would provide technical assistance for improving production and utilization of roots and tubers in national LDC programs. The project will utilize technical resources from developed country sources and the International Research Centers (IARCs) for extending technology on cassava, sweet potatoes, potatoes, yams, aroids and minor root and tuber crops.

Host Country and Other Donors: Host countries provide facilities for training/workshops, and local transportation. IARCs provide facilities for training at center sites.

Beneficiaries: The project is for worldwide application to all small farmers who would be the primary beneficiaries. Urban populations would also benefit from increased farm productivity.

FY 84 Program: Provide technical assistance for approximately 15 countries. Hold one training course and initiate graduate training activities.

Major Outputs and A.I.D. Units	All Years Units
Provided technical assistance in root and tuber industry production and development (consultancies)	60
Training programs, international workshops	8
Document sharing service	1
Appropriate technology interventions	15

A.I.D. Financed Inputs in $000s	FY 84
Personnel	$250
Commodities, equipment and supplied	25
Logistical support	125
Other costs	100
TOTAL	$500

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		
Estimated Fiscal Year 1982	-	-		-	
Estimated through September 30, 1982	-	-	-		
Proposed FY 1983	-	-		-	To be determined
Estimated through Fiscal Year 1983	-	-	-		
Proposed FY 1984	500	Future Year Obligations	Estimated Total Cost	12/31/83-12/31/84	
		2,500	3,000		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Douglas W. Butchart

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Tick Resistance in Ruminants	Agriculture, Rural Development and Nutrition	FY 84 300	LIFE OF PROJECT 1,500
NUMBER 936-4083 GRANT ☒ LOAN ☐ NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983 Annex V, Centrally Funded Programs, p.22	INITIAL OBLIGATION FY 83	ESTIMATED FINAL OBLIGATION FY 88 / ESTIMATED COMPLETION DATE OF PROJECT FY 89

Purpose: To develop a system to immunize cattle against East Coast Fever (Theleriosis), a tick transmitted disease.

Background and Progress to Date: East Coast Fever (Theileriosis) is an acute disease of cattle in East, Central and South Africa which is estimated to cause annual losses of over 100 million dollars per year to African livestock producers. The disease is transmitted by ticks. It has been observed by numerous investigators that, following exposure of animals to tick infestation, a resistance is acquired and the ability of ticks to feed on such animals is greatly reduced. Recently, research on ticks and East Coast Fever by researchers in East Africa, indicates that it should be possible to develop a methodology to render cattle resistant to tick infestation with antigens and hence protect them against East Coast Fever.

Host Country and Other Donors: This research would be conducted at the International Center for Insect Physiology and Ecology (ICIPE). ICIPE is a 17 million dollar research facility located on the campus of the University of Nairobi in Nairobi, Kenya. Collaboration involves the International Laboratory for Research on Animal Diseases (ILRAD) and the Kenyan Veterinary Laboratory at Magugu. All three research laboratories are located in or near Nairobi, Kenya.

Beneficiaries: Beneficiaries will be all owners of cattle in the regions where East Coast Fever (Theileriosis) is endemic. This project, if successful, will have a direct impact on virtually all owners of cattle and consumers in 30 countries of Africa.

FY 84 Program: As a follow through to the previous research on the physiology and ecology of ticks, an immunological component is proposed to determine whether cattle can be immunized against ticks. As a result of prior support from A.I.D., the successful completion of this project will be the pay-off to many years of research by numerous scientists.

Major Outputs and A.I.D. Units:

	All Years Units
Develop immunizing agents.	1
Produce cattle resistant to tick infestation (Herds).	1
Develop disease diagnostic procedures and reagents.	2

A.I.D. Financed Inputs in $000s:

	FY 84
Personnel (48 person months)	$ 125
Laboratory and yield testing services	100
Test animals	75
TOTAL	$ 300

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period
Through September 30, 1981	-	-	-	
Estimated Fiscal Year 1982	-	-		-
Estimated through September 30, 1982	-	-	-	
Proposed FY 1983	250	80		6/30/83-6/30/84
Estimated through Fiscal Year 1983	250	80	170	
Proposed FY 1984	300	Future Year Obligations	Estimated Total Cost	6/30/84-6/30/85
		950	1,500	

Principal Contractors or Agencies

International Center for Insect Physiology and Ecology (ICIPE):
International Laboratory for Research on Animal Diseases (ILRAD)
Kenya Veterinary Laboratory

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Mark Smith

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Weed Control Utilization	Agriculture, Rural Development and Nutrition	FY 84 400	LIFE OF PROJECT Continuing

NUMBER 931-0206 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983 Annex V, Centrally Funded Programs, p. 22	INITIAL OBLIGATION FY 76	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To provide technical assistance on environmentally sound weed control measures to increase developing country small farmer food crop production.

Background and Progress to Date: Weeds cause serious yield losses in LDCs. While less visible than losses from many insects and diseases, yield reductions from weed competition are far more widespread. It is estimated that losses from weeds commonly average 25% where traditional hand removal or tillage methods are used. Small farmers, most of whom depend on family labor, are unable to remove weeds before they reduce yields. Also the labor required for weeding (often 50% of the total for crop production) limits the area a family can farm. In addition, many perennials and parasitic weeds such as Striga species cannot be controlled by traditional methods. This project initiated in 1976, provides technical assistance in nonchemical weed control to LDC institutions on both terrestrial and aquatic weed problems, demonstrations of improved weed control systems conducted on farmers' fields, and intensive in-country workshops and short courses to train weed scientists for research, extension, and teaching. In addition, many publications have been prepared specifically for LDC weed control (some in Spanish). A computerized list of world publications on aquatic weeds and their control has been assembled and is now supplying printouts on request. The project's INFOLETTER is issued four times a year to over 4,000 people in LDCs to keep them informed of new publications, important meetings, and new developments in weed control.

Host Country and Other Donors: Countries where project staff are stationed provide office, laboratory and field facilities, and staff counterparts.

Beneficiaries: Ultimately the small farmer, rural poor, and village level consumers in LDCs. Initially, agricultural researchers and extension personnel.

FY 84 Program: Current program will be continued with major emphasis placed on providing Regional Bureaus (RBs), missions and host country institutions technical assistance in crop production, project design and evaluation concerning proper and environmentally sound weed control as well as advice concerning specific weed control problems. Long-term training (one year) and in-country short course training also will be continued. The weed control data base will be expanded and INFOLETTER distribution increased to provide current, in-depth information on weeds and their control.

Major Outputs and A.I.D. Units:	All Years Units
Technical assistance to RBs, missions, host country institutions	85
Training courses (long and short term)	150
Project design and evaluation	40

A.I.D. Fianced Inputs in $000s:	FY 84
Personnel	$150
Logistics (travel, equipment)	75
Training	125
Other costs	50
TOTAL	$400

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	2,373	2,001	372		Oregon State University
Estimated Fiscal Year 1982	450	450		6/1/82-6/83	
Estimated through September 30, 1982	2,823	2,451	372		
Proposed FY 1983	430	430		6/1/83-6/1/84	
Estimated through Fiscal Year 1983	3,253	2,881	372		
Proposed FY 1984	400	Future Year Obligations	Estimated Total Cost	6/1/84-6/1/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: F. Whittemore

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Pest Management and Related Environmental Protection	Agriculture, Rural Development and Nutrition	FY 84 900	LIFE OF PROJECT Continuing
NUMBER 931-0930 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983 Annex V, Centrally Funded Programs, p. 22	INITIAL OBLIGATION FY 71	ESTIMATED FINAL OBLIGATION FY Continuing / ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To help reduce LDC crop losses from insects, diseases and weeds by using economically and environmentally acceptable integrated crop protection methods.

Background and Progress to Date: Under the original project, the contractor fielded six multidisciplinary regional study teams to assess pest and pesticide management problems in LDCs and to identify urgent problems requiring immediate attention. Similar teams were also sent to five specific countries. Twelve pesticide management seminar workshops were held in the Philippines, Indonesia, Thailand, Egypt, Guatemala, El Salvador, Colombia, Senegal, the Eastern Caribbean, Bolivia, Tanzania and Peru. Five short courses on pest management in small farmer cropping systems were held in Peru, (2) the Philippines, and Costa Rica (2). Technical assistance has also been provided to agricultural development projects in Lesotho, Tunisia, Niger (2), Haiti, Peru, Honduras, Colombia, Bolivia, Panama (3), Liberia (4), Rwanda, Mauritania, Cameroon, Ecuador, Windward Islands, Sao Tome, Guinea-Bisseau, Cape Verde, The Gambia, Nepal, Senegal (3), Burundi, Mali (2), Kenya, Upper Volta, (2), Ivory Coast, Ghana, the Philippines, Zaire, Jordan, Nicaragua, Tanzania, Paraguay, Indonesia, Botswana, Somalia, and Fiji. Training in pesticide residue analysis was also conducted in Guatemala for a total of 9 students from Guatemala, El Salvador, Costa Rica and Honduras. The project is making special efforts in the area of Integrated Pest Management (IPM) and in addition to holding seminar/workshops and conducting short-term training, assists missions and regions in planning of agricultural projects so as to have a strong IPM component.

Host Country and Other Donors: Countries listed above furnished space and support services. When possible, training programs, short courses and seminars/workshops are jointly sponsored with the Food and Agriculture Organization (FAO), other bilateral donors such as GTZ, non-profit foundations and agencies of national governments.

Beneficiaries: Small farmers -- reduction of preharvest and food and cash crop losses. General consumer -- increased availability and quality of food. Positive environmental impact. Improved management pesticides.

FY 84 Program: Conduct training courses on integrated pest management systems for small farmer food and cash crops (2), pesticide residue and formulation analysis (4), prevention and diagnosis of pesticide poisonings (2), and seminar/workshops on pesticide management (2) to provide guidance to missions and LDCs in the establishment of integrated pest management programs in agricultural development projects. Technical Assistance on pest/pesticide problems as identified by USAIDs and their counterparts including environmental assessment preparation, as required by AID Regulation 16, to approximately twenty countries with links established where possible to small farm cropping systems, mixed annual systems and farming systems projects.

Major Outputs and A.I.D. Units:	All Years Units
Multidisciplinary pest mnagement teams	25
Pesticide management workshops	35
Pest management short courses	50
Pesticide residue sampling and analysis short courses (LDCs)	25
Pesticide residue sampling and analysis short courses (U.S.A.)	25
Pesticide formulation analysis short courses	10
Prevention, diagnosis, treatment of pesticide poisoning short courses	25
Aerial and ground pesticide applicators short courses	25
Short-term missions to design IPM programs for LDC agricultural development projects	150
Short-term technical assistance with environmental assessments	150

A.I.D. Financed Inputs in $000s:	FY 84
Personnel	$330
Consultants	150
Operations	330
Supplies and Equipment	90
TOTAL	$900

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	4,859	4,098	761		Consortium for International
Estimated Fiscal Year 1982	810	1,000		5/16/82-2/28/83	Crop Protection
Estimated through September 30, 1982	5,669	5,098	571		Berkeley, California
Proposed FY 1983	850	950		3/1/83-2/28/84	
Estimated through Fiscal Year 1983	6,519	6,048	471		
Proposed FY 1984	900	Future Year Obligations	Estimated Total Cost	3/1/84-2/28/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: H.R. Shuyler/R.F.Morris

TITLE	FUNDS	PROPOSED OBLIGATION (in thousands of dollars)	
Improvement of Postharvest Grain Systems	Agriculture, Rural Development and Nutrition	FY 84 600	LIFE OF PROJECT Continuing

NUMBER 931-0786 GRANT ☒ LOAN ☐	NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983, Annex V, Centrally Funded Programs, p. 22	INITIAL OBLIGATION FY 67	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To assist developing country institutions in planning and implementing programs to improve postharvest handling, storage, marketing, processing and distributing of grain and grain products.

Background and Progress to Date: Since the project's inception in FY 67, technical assistance has been provided to 56 countries. Over 370 individuals from 55 countries have received training at Kansas State University (KSU), 320 people have received training in twelve overseas locations and approximately 100 special purpose technical reports have been written. Assistance under the project up to 1981 has included: (1) 24 in-country efforts; (2) 10 short courses conducted on the KSU campus and in developing countries; (3) 25 analyses of national grain storage programs and recommendations for improvement. Technical assistance has been provided for: review of technical designs of grain storage systems, suggestions related to grain processing systems, investigations of grain policy alternatives, cooperation with the World Bank on grain storage projects, investigations of appropriate improved postharvest grain storage and drying technology for small farmers.

As a result of this project, significant changes toward improved grain handling and marketing have been made in many countries, and in many others an appreciation of the dimensions of the postharvest grain loss problem has been installed and the capability to deal with it is being developed.

Host Country and Other Donors: Through this Cooperative Agreement, A.I.D. supports one professional who is part of a four-person postharvest research and development team, stationed at the Southeast Asia Cooperative Postharvest Research and Development Programme, SEARCA, College, Laguna, Philippines. The team provides assistance to five southeast Asian countries especially, and is cooperatively sponsored by the International Development Research Centre (Canada), the Canadian International Development Agency, the Government of the Netherlands, and the Commonwealth Scientific and Industrial Research Organization (Australia).

KSU also has developed a cooperative arrangement with the University of Costa Rica to implement a regional program for improved postharvest technology for small farmers, including training for grain loss prevention.

Coordination of technical assistance with other donor organizations is continuing to increase through KSU's membership on behalf of A.I.D. in the informal Group for Assistance on Systems for Grain After-harvest (GASGA).

Beneficiaries: Farmers and consumers in the developing countries benefit from the reduction of grain losses and improvements in efficiency of the marketing systems. Technology innovations suggested and training supplied by KSU staff increase the availability of grain products and increase the host country expertise available for solving grain loss problems.

FY 84 Program: Technical services will be continued to support host country and mission activities. Several training courses for extensionists and grain warehouse managers will be conducted at the request of host countries. Reports relating to appropriate grain saving technologies for small farmers will be published. The Postharvest Documentation Service will continue to share documents free to developing country requestors and the KSU database of technical reports will be expanded to include dry legume commodities.

Major Outputs and A.I.D. Units:	All Years Units
Team responses to mission requests	75
In-country seminars conducted	10
Developing country personnel trained in U.S.	150
Postharvest documentation service	1

A.I.D. Financed Inputs in $000s	FY 84
Personnel (133 person months)	$400
Logistics	100
Training (20 person months)	60
Other	40
TOTAL	$600

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	6,417	5,740	677		Kansas State University
Estimated Fiscal Year 1982	720	750		6/16/82-6/15/83	
Estimated through September 30, 1982	7,137	6,490	647		
Proposed FY 1983	650	700		6/16/83-6/15/84	
Estimated through Fiscal Year 1983	7,787	7,190	597		
Proposed FY 1984	600	Future Year Obligations	Estimated Total Cost	6/16/84-6/15/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Robert F. Morris

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Farm Level Postharvest Grain Losses	Agriculture, Rural Development and Nutrition	FY 84 450	LIFE OF PROJECT 1,400
NUMBER 931-1322 GRANT ☒ LOAN ☐	NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983, Annex V, Centrally Funded Program, p.22	
		INITIAL OBLIGATION FY 83	ESTIMATED FINAL OBLIGATION FY 86
			ESTIMATED COMPLETION DATE OF PROJECT FY 87

Purpose: To extend the use of an A.I.D. developed methodology for assessing and reducing postharvest grain losses and train developing country personnel in the use of the methodology for developing action programs designed to prevent pre- and postharvest losses.

Background: Total developing country postharvest grain losses are estimated to exceed 10% of the harvested crop in many instances, with a monetary loss estimated to exceed $10 billion per year. Although 60% to 70% of the grains produced in the developing countries remain on the farm, the extent and causes of losses and the most effective and safest methods for reducing losses at the farm level have received little attention. A.I.D. has recently developed a methodology in cooperation with the League for International Food Education (LIFE) for assessing postharvest grain losses. This methodology has yet to be applied to field situations for the identification of major points of losses in the postharvest grain systems of developing countries. This project is designed to assess postharvest grain losses of the three grain commodities (rice, corn/beans, and millet or sorghum) under the differing climatic conditions. It will provide technical assistance to host countries in training for the application of the methodology, conducting field assessments and from the results, design the implementation of efficient loss reduction strategies for small farmers. The project will compare rapid assessment methods with a more thorough analysis of regional postharvest grain systems. The project will document the role of women in postharvest grain activities and develop training and extension techniques appropriate for intervention strategies. The project will apply the A.I.D./LIFE methodology to assess pre- and postharvest grain losses resulting from damage by rodents, birds, and microorganisms.

Host Countries and Other Donors: Cooperation with the Food and Agriculture Organization's Postharvest Programme, the Tropical Products Institute (London), the International Development Research Center (Canada), the Commonwealth Secretariat (London), Group for the Assistance on Systems related to Grains After-harvest (GASGA), and with the three host country institutions which will cooperate with the project, will focus international interest on postharvest grain loss reduction. This focus will be highlighted by an international conference sponsored by the project immediately prior to project termination. This will share the results of field trails with the international community and will greatly assist the application of the methodologt to other countries.

Beneficiaries: The ultimate beneficiaries will be cooperating country grain farmers, and as more grain enters commercial market channels, grain consumers will benefit as well. International donors will benefit from the policy implications resulting from a more thorough understanding of developing country grain systems.

FY 84 Program: Site selections will be made for the three country projects and initial assessments will be conducted regionally during FY 83. Data will be collected relating to the role of women in the postharvest grain system and plans will be developed for an approach to extend improved grain drying and storage technology through women's groups and traditional extension networks within each country. Second year (FY 84) activity will concentrate on regional assessments and intensive training and extension work for reduced on-farm grain losses. The project will communicate findings via project reports and through regional and international conferences which will involve other international donors. The final year of the project will phase out all but two remaining project staff who will assist host country governments in efforts to promulgate improved postharvest grain technology and training. Remaining project staff will assist USAIDs in PID or PP design and promote the use of cost effective grain loss reduction and assessment technologies developed during this project.

Major Outputs and A.I.D. Units:	All Years Units
Rapid Assessments of Postharvest Grain Systems	3
In-depth Regional Assessments	3
Documentation of Women's Role in Grain Systems	3
Training of Extension Teams/Host Country/Agencies	3
Annual Country Leader's Workshop and Evaluation	3
End of Project International Conference	1
Follow-up Project Development with Other Countries	8

A.I.D. Financed Inputs in $000s	FY 84
Personnel (50 person months)	$ 150
Commodities and equipment	75
Logistical support	150
Other	75
TOTAL	$450

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		
Estimated Fiscal Year 1982	-	-		-	To be determined
Estimated through September 30, 1982	-	-	-		
Proposed FY 1983	350	200		1/31/83-12/31/83	
Estimated through Fiscal Year 1983	350	200	150		
Proposed FY 1984	450	Future Year Obligations	Estimated Total Cost	1/01/84-12/31/84	
		600	1,400		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Robert F. Morris

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Storage and Processing of Fruits and Vegetables	Agriculture, Rural Development and Nutrition	FY 84 400	LIFE OF PROJECT Continuing
NUMBER 931-1323 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1982 Annex V, Centrally Funded Programs, p.22	INITIAL OBLIGATION FY 80	ESTIMATED FINAL OBLIGATION FY Continuing / ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To support the Postharvest Institute for Perishables (PIP) which provides technical assistance to A.I.D. missions and cooperating country agencies and institutions for reducing postharvest losses of roots, tubers, fruits, vegetable and spice commodities.

Background and Progress to Date: Roots, tubers, fruits, and vegetables provide the basic diet for 600-800 million people in developing countries. These perishable commodities and spices can provide important export commodities which can generate foreign exchange. Postharvest losses of 30% to 50% of the harvested crops are common. Marketing systems for horticultural produce are often antiquated and inefficient. Readily available appropriate technologies exist to reduce losses in developing countries and foster improved storage and processing of perishables for regional, national, and international markets. Losses of these perishable commodities mean lost calories and important vitamins and minerals in the diet as well as wasted human effort, land, fertilizer, irrigation, and other production inputs. Assistance in perishable loss reduction can help the small farmers advance into the marketing or commercial sector of the rural economy with a higher proportion of their production. As the market volume of these products grows and as small scale service agribusinesses develop, rural employment will be created. Technical assistance will be provided to USAIDs and host country institutions in the following areas: (1) training of Third World nationals in improved storage and handling practices for perishables; (2) design of improved processing systems for perishables; (3) feasibility studies for efficient domestic marketing systems for domestic and international markets; (4) loss assessments to pinpoint where in the postharvest food chain interventions can reduce losses significantly; and (5) documentation provided to developing country requestors for technical reports related to postharvest storage, handling, packaging, and loss control for root, tuber, fruit, vegetable and spice commodities.

Host Country and Other Donors: PIP is the Secretariat for the Group for Assistance of Perishable Products (GAPP). This is an international network designed to facilitate communication among international donors, research institutions, and developing country trade associations interested in reduction and prevention of postharvest losses of perishables. Associate members of GAPP such as commodity trade associations and research centers will participate in the sharing of newly developed and appropriate technologies for local farmers. Host country extension networks will be encouraged to participate in the activities of GAPP in addition to the donor and associate members.

Beneficiaries: Farm families will benefit through increased net production and income, while consumers will benefit from the increased supply. Export earnings will acrue as technologies and marketing skills are made more available to host country institutions for the facilitation of perishable commodity exports. Introduced technologies will reduce the health risk for consumers from the consumption of processed perishables and increased variety and quality of processed perishables will be available to local consumers.

FY 84 Program: Assistance will be provided to at least 12 developing countries in the following areas: market grades and standards, price policies, efficient transportation and marketing systems, new products and packaging, farmer advisory services, loss reduction strategies, loss quantification, and technical information dissemination relating to insect, bacterial, and fungal causes of postharvest perishable losses. Coordination of this program with work of other multilateral development agencies and international research centers which relate to perishable losses will develop as GAPP becomes operational in FY 84. One international workshop and two training short courses will be held to help identify priority loss reduction intervention schemes and will evaluate appropriate technologies for quantifying and implementing loss reduction strategies. Graduate training appropriate for a minimum of four developing country personnel will be supervised by the core staff of the contractor, the University of Idaho. Manuals and literature searches relating to perishable losses will be developed and distributed by the contractor.

Major Outputs and A.I.D. Units:	All Years Units
Technical Responses to Missions	80
Appropriate Technology Interventions	15
Developing Country Personnel Trained	275
Document Sharing Service	1
Loss Reduction Manuals	10
International Workshops	5
Support for GAPP	1

A.I.D. Financed Inputs in $000s:	FY 84
Personnel	$200
Logistics	100
Training and others	100
TOTAL	$400

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	450	224	226		
Estimated Fiscal Year 1982	350	300		7/30/82-9/30/83	
Estimated through September 30, 1982	800	524	276		
Proposed FY 1983	360	360		10/01/83-9/30/84	University of Idaho
Estimated through Fiscal Year 1983	1,160	884	276		
Proposed FY 1984	400	Future Year Obligations	Estimated Total Cost	10/01/84-09/30/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Harlan R. Shuyler

TITLE	FUNDS
Pre-Postharvest Rodent and Bird Control	Agriculture, Rural Development and Nutrition
NUMBER 936-4120 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983, Annex V, Centrally Funded Programs, p. 22

PROPOSED OBLIGATION (in thousands of dollars)		
FY 84 650		LIFE OF PROJECT 7,950
INITIAL OBLIGATION FY 83	ESTIMATED FINAL OBLIGATION FY 92	ESTIMATED COMPLETION DATE OF PROJECT FY 93

Purpose: To develop and demonstrate improved rodent and bird control systems for the reduction of food losses in LDCs.

Background: Rats and birds annually destroy billions of tons of desperately needed food crops in food-short developing countries. Conservatively, losses amount to hundreds of millions and perhaps billions of dollars annually. In rice alone, an estimated 50 million tons are lost each year to rats. This much rice could feed one billion people for three months. Pre- and postharvest losses of grains, legumes, oil seeds and other agricultural products are pandemic. Losses to food grains include weight reduction, irretrievable spillage, rodent hoarding, seed scattering by birds, reduction in nutritional value due to selective feeding and other indirect losses caused by these pests.

Rodent losses include the young small stock destroyed, eggs eaten and egg production reduced. Rodents are involved in animal and human disease transmission, notably leptospirosis and bubonic plague. More effective rodent and bird control are needed desperately. This project will contribute toward increasing food supplies by reducing losses and damage which results from inadequate control.

This project started in FY 83. As a result of the previous project, Control of Vertebrate Pests, 13 of 18 countries plagued with vampire bats have their own control programs. Rice production losses in the Philippines have been reduced from 5 to 1% on 1/2 million ha. Coconut yields have been shown to be increasing in Colombia and the Philippines, up to 280%. Wheat losses to birds in Tanzania were reduced experimentally with repellents from 80 to 5%. Over 3,000 persons have been trained with 36 nationals from LDCs receiving advanced degrees. About 200 technical papers have been published. Miniaturized radio telemetry equipment developed has lead to needed knowledge of behavior of bats, birds and rodents. Development of loss assessment methods has meant that better decisions can be made in funding vertebrate pest control.

Host Country and Other Donors: The Denver Wildlife Research Center (DWRC) has established field stations in the Philippines, Bangladesh, Haiti and the Dominican Republic, which will likely be the first field test sites. This project may collaborate with the Kenya On-Farm Grain Storage Project for selection of the second test site. Liaison with vertebrate pest control personnel from FAO, the British ODA and the German GTZ is anticipated.

Beneficiaries: Farmers and consumers in developing countries will benefit from the improved quality and quantity of foods available for consumption. Developing countries will benefit as losses to rodents and birds are reduced and as human and other animal diseases associated with rodents are minimized.

FY 84 Program: Project implementation began at the DWRC where formulation of improved baits are undergoing the preliminary screening trials. Site selection for two field test areas will be finalized and liaison with appropriate host country personnel will be completed. Male and female rat chemo-sterilants will be evaluated. Flavor compounds considered capable of enhancing the palatability of baits will be tested under controlled conditions. Methods to prevent the deterioration of baits under field conditions will be developed. This may include the use of micro-encapsulation technology suitable for the volatile flavoring compounds being tested. Bait stations capable of recording feeding behavior and able to effect rodent kill during peak feeding will be available to monitor the effectiveness of sample bait formulations. Rat sex pheromones are planned to be used in conjunction with bait formulations in efforts to increase attractiveness of rodent baits. Field trials will begin by the end of this, the second year of the project. Projects requiring technical assistance, PID design or PP preparation will have continuing access to technical support for host country projects through TDY of DWRC specialists. Plans also call for added emphasis on training of all types at all levels and on increased emphasis on information sharing -- the provision of extension materials and vertebrate pest control written material to those needing it.

Major Outputs and A.I.D. Units:	All Years Units
In-country field demonstrations	7
Conducting in-country seminars	6
Training developing country personnel	1,000
Conducting regional workshops	2

A.I.D. Financed Inputs:	FY 84
Personnel (138 person months)	$450
Logistics	70
Training	45
Equipment	65
Other	20
TOTAL	$650

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		U.S. Department of Interior Denver Wildlife Research Center
Estimated Fiscal Year 1982	-	-			
Estimated through September 30, 1982	-	-	-		
Proposed FY 1983	500	-		1/1/83-12/31/83	
Estimated through Fiscal Year 1983	500	377	123		
Proposed FY 1984	650	Future Year Obligations	Estimated Total Cost	1/1/84-12/31/84	
		6,800	7,950		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: T. S. Gill

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Soil Management Support Service	Agriculture, Rural Development and Nutrition	FY 84 900	LIFE OF PROJECT 8657

NUMBER 931-1229 GRANT ☒ LOAN ☐	NEW ☐ CONTINUING ☑	PRIOR REFERENCE FY 1983 Annex V, Centrally Funded Program, p. 24	INITIAL OBLIGATION FY 79	ESTIMATED FINAL OBLIGATION FY 88	ESTIMATED COMPLETION DATE OF PROJECT FY 89

Purpose: To help conserve and manage vital soil resources of the developing nations for agriculture production.

Background and Progress to Date: Less than half of the roughly two billion hectares of potentially arable land in the tropics is currently under cultivation. In view of present trends of population growth and soil degradation, the world soil resources will have to be utilized more intensively and extensively in the future. This will encourage the use of indigenous methods of land use that are not only more exploitive but also more destructive than in the past. This project will attempt to help reverse and reduce the process of depletion and degradation of LDC soil resources and speed up technical transfer of improved crop and soil management practices among similar agroecological zones, and provide for increased food production. Coordinated short-term technical assistance will be provided in the areas of soil survey, soil fertility, land use planning and soil conservation, as well as basic support for the improvement of an international soil classification system will help catalyze cost-effective field operations needed for rapid, efficient development and more long-term productive utilization of LDC land resources. During the period March 1981 - February 1982, 30 short-term consultancies were provided to 16 Missions and 4 Regional Bureaus. A three person core staff managed the project during the period. An international soil classification workshop for the arid region was organized in Rwanda during 1981. Another international soil classification workshop is planned for Sudan, Africa during 1982. A brochure on the project was published and distributed worldwide. The Project was reviewed and commended for its progress by USAIDS. Proceedings of the workshops were distributed to key soil scientists in most countries.

Host Country and Other Donors: Almost every project-funded technical assistance activity and soil classification program receives significant contributions from the developing countries and the other collaborators. Host countries normally provide logistic and financial support. Many LDCs support participants to courses and workshops. Prominent soil scientists also frequently waive compensation for their time to the workshops.

Beneficiaries: Farmers in the developing countries benefit directly from this program through better advice on how to manage their land for immediate increase in productivity and long-range protection from damage due to uniformed exploitation. Advisors and officials within host governments benefit by becoming more knowledgeable, more capable of tackling real field problems and at the same time providing more soundly based recommendations for government development plans.

FY 84 Program: Will continue to provide technical assistance to LDCs in problem identification, evaluation of opportunities and development of new ideas. Some emphasis will be placed on soil fertility problems. Other areas receiving emphasis will include soil survey, land use planning and conservation. Emphasis on the improvement of soil classification for tropical regions will continue. USAIDs are expected to pay some travel and per diem for the technical assistance they receive.

During the year, 45 person months short-term TDY will be available to USAIDs. One training class will be conducted for twenty LDC participants. One international soil classification workshop will be held. Seven international soil classification committees will be functioning. A training course for ASEAN countries will be held.

Major Outputs and A.I.D. Units:	All Years Units
Consultancies (in worker months)	300
Soil sample analysis	1800
Workshops	8
Persons trained	110
Publications	17
Improved soil classification	1

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (70 work months)	$450
Logistics	290
Training	110
Commodities	50
TOTAL	$900

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	2127	1307	820		
Estimated Fiscal Year 1982	730	700		10/1/82 to 9/30/83	USDA - SCS
Estimated through September 30, 1982	2857	2007	850		
Proposed FY 1983	900	850		10/1/83 to 9/30/84	
Estimated through Fiscal Year 1983	3757	2857	900		
Proposed FY 1984	900	Future Year Obligations	Estimated Total Cost	10/1/84 to 9/30/85	
		4000	8657		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: T. S. Gill

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
International Benchmark Sites Network (Agriculture Research Transfer Methodology	Agriculture, Rural Development and Nutrition	FY 84 1100	LIFE OF PROJECT 9930
NUMBER 936-4054 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983 Annex V, Centrally Funded Programs, p. 25	INITIAL OBLIGATION FY 82	ESTIMATED FINAL OBLIGATION FY 89 / ESTIMATED COMPLETION DATE OF PROJECT FY 90

Purpose: To organize, assemble, store and utilize crop and land resource management data from international and national agricultural centers in a data bank for transferring cost-effective food production technology to and among developing nations.

Background and Progress to Date: During the past two decades a substantial amount of agronomic information based on research and improved production practices has been developed in LDCs, IARCs and DC institutions which has potential application beyond the original sites where it was generated. Such improved production recommendations if more broadly applied would speed the process of modernization of the small farm sector and create higher employment and income in the rural sector.

To effectively transfer results from one area to another will require the development of soil and environmental characterization procedures that permit high levels of probably success in extrapolating crop production recommendations from one location to another within and among countries. Several systems have been tried in the past for the transfer of agriculture technology but none has worked when used on a wider scale. This project will utilize the concept proven by the Benchmark Soils Project, and A.I.D. funded program, that agrotechnology can be transferred among similar agroecological regions in a scientific way using U.S. Soil Taxonomy as a base. The Soil Taxonomy is the most comprehensive land classification system in the world and the only system that encompasses environmental factors such as temperature and moisture regimes as its parameters. This system with A.I.D. assistance is being internationalized and improved for use in the tropical regions. As a result of A.I.D. efforts LDCs are rapidly accepting this system over other systems in existence. This system will help coordinate and communicate effective use of recent and current research results.

The agroenvironment and the corresponding crop response and land data from select sites will be programmed by the contractor in a computerized data bank. This data will be made available to researchers, planners and extension people in LDCs. The overall output of the project will be a prototype network which will serve as a model to demonstrate the operation of agrotechnology transference systems and provide training ground for more comprehensive networks (national, regional and international) to fulfill LDC needs for technology transfer.

Host Country and Other Donors: CIAT, IITA, ICRISAT, ICARDA and other international and national centers are expected to cooperate and contribute. FAO cooperation is anticipated.

Beneficiaries: Ultimate beneficiaries will be tropical farmers.

FY 84 Program: Soil survey work at ten agricultural sites will be initiated. Agreement on usage of standardized procedures for producing crop response data will be completed with the collaborating institutions. Programming of the soil/crop climate data bank will be completed for collecting, storing and disseminating agricultural information among countries. It is expected that this activity will be closely coordinated with the Soil Management CRSP and the Soil Management Support Services projects. Careful characterization of the soils is a vital step to both research and utilization of known technology or new research results in new areas.

Major Outputs and A.I.D. Units	All Years Units
Soil classification data of agricultural centers	25
Crop response data from respective centers	25
Data bank (data storage and retrieval)	1
Training packages	5
Training workshops	5
People trained	50
Publications	20

A.I.D. Financed Inputs in $000s:	FY 84
Personnel	$ 400
Logistic	250
Training	250
Commodities	100
Other	100
TOTAL	$1100

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		
Estimated Fiscal Year 1982	600	150		6/1/82 to 5/31/83	University of Hawaii
Estimated through September 30, 1982	600	150	450		
Proposed FY 1983	900	850		6/1/83 to 5/31/84	
Estimated through Fiscal Year 1983	1500	1000	500		
Proposed FY 1984	1100	Future Year Obligations	Estimated Total Cost	6/1/84 to 5/31/85	
		7230	9930		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: T. S. Gill

TITLE: Tissue Culture for Improved Food Crop Varieties	FUNDS: Agriculture, Rural Development and Nutrition	PROPOSED OBLIGATION (In thousands of dollars) FY 84: 225	LIFE OF PROJECT: 1150	
NUMBER: 936-4055 GRANT ☒ LOAN ☐	NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983 Annex V, Centrally Funded Programs, p. 25	INITIAL OBLIGATION FY 80	ESTIMATED FINAL OBLIGATION FY 85	ESTIMATED COMPLETION DATE OF PROJECT FY 86

Purpose: To test the use of tissue culture as a cost effective technique to improve stress tolerant characteristics to wheat, rice millet.

Background and Progress to Date: This project is based on a successful conclusion of an earlier A.I.D. funded small research study by Colorado State University. That study demonstrated that by exposing plant cells (tobacco) to increasing levels of salt (Na Cl), one can select cells that will tolerate much higher levels of salt than the original cells. These cells are regenerated into whole plants which retain their salt tolerance from one generation to another. In the tropical and sub-tropical world, over two billion hectares experience stresses such as mineral deficiencies or toxicities, low and high temperature and drought conditions. Current approaches to alleviate the situation are to change or amend the soil to fit the plant needs or in a few instances fit the plant to the environment. However, certain conditions either cannot economically be corrected with the current technology or a viable system is not available to deliver a suitable technology to the small farmer in the LDCs. These problems can be addressed by the possible development of stress tolerant varieties by means of plant tissue culture techniques. The project will study wheat, rice and millet crops for tolerance to salt, aluminum toxicity and drought.

Host Country and Other Donors: The project is linked with international and national agricultural research centers with regards to germ plasm and utilization of the technique. These centers will test the stress tolerant crop varieties at no cost.

Beneficiaries: The overall thrust of the program is to advance knowledge for crop production on marginal lands. It holds great promise for increased benefits for the poor farmer, especially women, who have traditionally played a major role in such areas.

FY 84 Program: To continue work started during 1981-82 and obtain desired tolerance levels for salt and aluminum toxicity in rice and salt tolerant cell lines of millet. Start greenhouse testing of salt tolerant wheat and rice varieties. Regenerate other wheat and rice lines tolerant to salt and aluminum toxicity.

Major Outputs and A.I.D. Units:

	All Years Units
Wheat varieties tolerant to 3 stresses	6
Rice varieties tolerant to 2 stresses	4
Millet varieties tolerant to 1 stress	2
Trained scientists	5

A.I.D. Financed Inputs in $000s:

	FY 84
Personnel (30 person months)	$145
Logistics	40
Equipment and Supplies	40
TOTAL	$225

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	500	168	332		
Estimated Fiscal Year 1982	–	172		10/1/81 to 7/30/82	Colorado State University
Estimated through September 30, 1982	500	340	160		
Proposed FY 1983	200	160		10/1/82 to 9/30/83	
Estimated through Fiscal Year 1983	700	500	200		
Proposed FY 1984	225	Future Year Obligations	Estimated Total Cost	10/1/83 to 9/30/84	
		225	1150		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: L. Worth Fitzgerald

TITLE: Small Scale Irrigation Systems	FUNDS: Agriculture, Rural Development and Nutrition	PROPOSED OBLIGATION (in thousands of dollars) FY 84: 350	LIFE OF PROJECT: 3500
NUMBER: 936-4121 GRANT ☒ LOAN ☐ NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983 Annex V, Centrally Funded Programs, p. 25	INITIAL OBLIGATION FY 83	ESTIMATED FINAL OBLIGATION FY 91
			ESTIMATED COMPLETION DATE OF PROJECT FY 92

Purpose: To adapt old and develop new water management technologies for small farms.

Background: Publically financed irrigation systems in LDCs are generally developed where large tracts of fertile land are commandable by the system and where there is an economic source of water large enough to supply the crop needs of a large group of farms. Financing and technologies for these large scale projects are readily available or adaptable.

There are, however, many smaller sources of water outside these systems but which cannot be readily combined into a single large operational irrigation unit. Typically such areas are farmed by poorer farmers and the farms are small. Attempts to use the water resource are usually ineffective and certainly inefficient because of a lack of knowledge and/or resources available to the farmers. As a result, governmental assistance programs often pass them by.

This project will focus on development of new and adaptation of older water conservation and water management technologies that could be especially suitable for small farm systems but which are usually inappropriate for larger scale agricultural irrigation projects. There are several. Obvious ones include: cropping pattern adjustment, using residual soil moisture from receding rivers at the end of the rainy season, pumping from shallow water tables or rivers where power is supplied by man, animal, solar, wind or fossil fuel, small channels from rivers, sprinkler irrigation using gravity as the power source, small ponds, etc.

The project will include a detailed survey and analyses of technologies presently in use; refinement of promising technologies and development of new ones; development of procedures to adapt these technologies to the conditions of specific LDCs; pilot testing in suitable locations; and provision of the necessary information to extend them to other areas.

Host Country and Other Donors: Host country institutions will be necessary as cooperators with the analyses and in pilot testing phases of this activity.

Beneficiaries: Small farm operators outside large scale irrigation systems.

FY 84 Program: The survey and analysis would be completed and at least one technology would be developed and readied for pilot testing. The analysis will require considerable time and travel because there are isolated cases of successful small farm irrigation in several LDCs. These will need to be studied in considerable detail especially from the economic point of view.

Major Outputs and A.I.D. Units:

	All Years Units
Survey and analysis	1
Technology refinements	6
Pilot tests	3
Handbooks	6
Information and extension system	1
Training course	1

A.I.D. Financed Inputs in $000s:

	FY 84
Personnel (50 person months)	$180
Logistics	100
Other	70
TOTAL	$350

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		To be determined
Estimated Fiscal Year 1982	-	-		-	
Estimated through September 30, 1982	-	-	-		
Proposed FY 1983	350	260		12/1/82 to 12/31/83	
Estimated through Fiscal Year 1983	350	260	90		
Proposed FY 1984	350	Future Year Obligations	Estimated Total Cost	12/31/83 to 12/31/84	
		2800	3500		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: John L. Malcolm

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
Soil Fertility Testing Program	Agriculture, Rural Development and Nutrition	FY 84: 500	LIFE OF PROJECT: 3700	
NUMBER 936-4129 GRANT ☒ LOAN ☐ / NEW ☒ CONTINUING ☐	PRIOR REFERENCE: None	INITIAL OBLIGATION FY 84	ESTIMATED FINAL OBLIGATION FY 89	ESTIMATED COMPLETION DATE OF PROJECT FY 90

Purpose: To help farmers in developing countries adopt soil fertility management practices which produce better crops and better incomes for the farmer.

Background: Research under A.I.D. and other donor sponsorship, at International Agricultural Research Centers and in national intitutions has shown that good soil management systems are available for many if not most farming areas in developing countries. These research findings are unutilized too often or at best poorly adapted to meet farmers' needs.

Among fertility management practices liming must receive special attention. This practice is neglected in developed countries and almost totally ignored in the developing countries. Earlier concepts indicated that liming rates for tropical soils would be prohibitively expensive and only acid and aluminum tolerant crops could be grown. Recent trials show that modest lime applications can be highly beneficial even for acid tolerant crops. In addition only builders' lime is available in most developing countries. Economical crushed limestone must be prepared and its value demonstrated.

This project would provide assistance to USAIDs and ministries of agriculture in refining fertilizer recommendations to make adoption of improved practices attractive to farmers. This assistance may include setting up or revitalizing soil testing services, training agronomists in use of soil survey or soil taxonomy.

It will locate exploitable limestone deposits and establish a pilot quarry and crushing operation. It will arrange for transport and guidance to farmers on application.

Host Country and Other Donors: This project will complement ongoing host country activities, the FAO Freedom From Hunger Campaign and projects sponsored by other agencies. None of these organizations will be expected to contribute funds directly to this project but rather to be paying for associated costs to reach the ultimate objective. In a given country project cost will probably be small compared to the cost to the host government.

Beneficiaries: Farmers from developing countries will benefit from better guidance to more profitable farm practices. All citizens should benefit from an increased food supply, additional jobs and reduced competition among food, energy and consumer goods imports for scarce foreign exchange.

FY 84 Program: During the first year's program USAIDs and host countries which require the services offered by this project will be identified and direct service will begin. Bangladesh offers a potential target for improved fertilizer recommendations. Panama, Guyana and Jamaica all have recognized liming problems and known sources of limestone which can be exploited.

Major Outputs and A.I.D. Units:

	All Years Units
Soil test assistance	35
Survey interpretation	30
Limestone demonstrations	3
Fertility management packages	40

A.I.D. Financed Inputs in $000s:

	FY 84
Personnel (20 person months)	$350
Logistics	85
Other costs	65
TOTAL	$500

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		To be determined
Estimated Fiscal Year 1982	-	-		-	
Estimated through September 30, 1982	-	-	-		
Proposed FY 1983	-	-		-	
Estimated through Fiscal Year 1983	-	-	-		
Proposed FY 1984	500	Future Year Obligations: 3200	Estimated Total Cost: 3700	10/1/83 to 9/30/84	

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: L. Worth Fitzgerald

TITLE	FUNDS	PROPOSED OBLIGATION (in thousands of dollars)	
Water Management Synthesis II	Agriculture, Rural Development and Nutrition	FY 84 1300	LIFE OF PROJECT: Continuing
NUMBER 936-4127 GRANT ☒ LOAN ☐ / NEW ☒ CONTINUING ☐	PRIOR REFERENCE FY 1982 C.P. Amended Version, Main Volume, p. 25	INITIAL OBLIGATION FY 82	ESTIMATED FINAL OBLIGATION FY ... Continuing / ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To Strengthen the institutional capabilities of less developed countries (LDCs) to improve irrigation efficiency and achieve better allocation, distribution and use of irrigation water.

Background: Irrigation is critical to meet future food needs of LDCs. However, the challenge is not merely to expand irrigation, but to also make irrigation systems more efficient. Several factors account for low systems- efficiency and the generally unsatisfactory performance of LDC irrigation; a major one being poor water management, which affects not only water allocation, distribution and use, but also contributes to inequities and uncertainty in water delivery.

The project is designed to bring about better understanding of the importance of good water management by policymakers and planners, as well as by irrigation systems operators and farmers; to strengthen the capability of LDC institutions to adapt and carry out effective programs and policies that will encourage better water management; and, to develop improved water management technologies and procedures that will lead to more efficient irrigation-system operation. Technical assistance will be provided to A.I.D. missions and host-countries in a variety of areas, as well as in-country training for LDC nationals, including training course development and testing, preparation of training materials and audio visual modules; special studies involving research, analyses, and appraisals; and, technology transfer, through newsletters, seminars and preparation of planning guides and handbooks.

Host Country and Other Donors: While host country cooperation will be involved in most activities, project will not generally have in-country project sites, as short-term technical assistance, training and special studies to be mostly employed. Project will be global, although heavy emphasis will be given to Asian region, and specific countries can not be identified at this time.

Beneficiaries: Initial beneficiaries will be host country institutions and agencies involved in designing/implementing irrigation projects, programs and schemes. However, benefits will ultimately be transferred to farmers and water users through training, development of planning guides, and manuals, adoption of more effective policies and, the transfer and

FY 84 Program: FY 83 first real project year, although authorization occurred late FY 82; this period focused primarily on Technical Assistance and Training Components. FY 84 will see continuation in these areas but with expanded activity under Technology Transfer and Special Studies Components. At least two regional workshops/seminars will be held, as well as establishment of an expanded information dissemination/exchange network and preparation of three handbooks/manuals. Three - four special studies will be conducted, including at least one on project monitoring, as well as an economic analysis and an examination of problems confronting small, locally controlled water-user organizations.

Major Outputs and A.I.D. Units:

	All Years Units
Technical assistance (person-months)	550
Training courses held	30
Participants trained	850
Audio-visual modules developed	20
Special studies/analyses conducted	35
Guides/handbooks/newsletters	60
Seminars/workshops/planning sessions	15

A.I.D. Financed Inputs in $000s:

	FY 84
Personnel (225 person months)	$ 900
Equipment/Publications	100
Logistics	200
Operations/overhead	100
TOTAL	$1300

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		Consortium for International Development
Estimated Fiscal Year 1982	2600	900		6/1/82 to 1/29/84	
Estimated through September 30, 1982	2600	900	1700		
Proposed FY 1983	500	1300		1/30/84 to 5/31/84	
Estimated through Fiscal Year 1983	3100	2200	900		
Proposed FY 1984	1300	Future Year Obligations	Estimated Total Cost	6/1/84 to 5/31/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: L. Worth Fitzgerald

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Degradation of Productivity - Erosion and Drainage Assistance	Agriculture, Rural Development and Nutrition	FY 84: 700	LIFE OF PROJECT: 8900
NUMBER 936-4130 GRANT ☑ LOAN ☐ / NEW ☒ CONTINUING ☐	PRIOR REFERENCE: None	INITIAL OBLIGATION FY 84	ESTIMATED FINAL OBLIGATION FY 91 / ESTIMATED COMPLETION DATE OF PROJECT FY 92

Purpose: To provide technical support to Missions and LDC institutions in erosion control technology

Background: Soil erosion is a universal problem throughout the developing world. It goes with poverty and robs the poor individuals and the national economic stability based on a stable and productive natural resource base. More land is lost to erosion each year than can be brought into production.

Many techniques are known for controlling both water and wind erosion but the need is seldom recognized before the damage is severe and often irreparable. Individuals, communities and nations are slow to adopt the necessary remedies. The remedies require both skill and energy. They may, after extensive damage has occurred, be very costly. They may require a complete change of land use, such as forestation. Erosion control seldom shows immediate returns and is, therefore, difficult to promote and is easily set aside for short-term goals.

Local materials, simple equipment and working with local farmers will be stressed in this project. Efforts to find affordable solutions to control erosion will be stressed. Emphasis will be on cultural practices with engineering structures used only when essential.

The project will provide technical assistance in diagnostic analysis of country-wide erosional status, design and evaluation of projects in erosion control and research, and design and implementation of research sites and/or institutions for in-country or regional erosion research. Assistance will also be provided in informational exchange and analyses among LDC institutions involved in erosion control efforts. Workshops and training will also be provided.

Drainage is a major problem in large areas of agricultural lands in both humid and arid regions. In humid regions with soils having poor internal drainage or in areas with seasonally excessive precipitation, land areas can be brought into often highly productive status with the provision of adequate drainage.

Salinity is a major problem reducing soil productivity in many arid or semi-arid regions in connection with irrigation projects but also in many areas of naturally occurring high water tables. The increase in crop productivity can be very striking with the lowering of the water table through drainage as well as allowing for the leaching of salts through the profile.

Drainage is a highly technical area and requires individuals that are knowledgeable in the scientific aspects but also well informed on the most recent technology of the field.

This project will provide technical assistance in Missions and LDC institutions in analyses of drainage needs within country, evaluation of drainage aspects in irrigation project designs, and drainage requirements for salinity alleviation.

This project will complement existing projects of technical support in soil and water management. It will focus on the continually increasing problem of conserving the soil resource while increasing production through more intensive management. It is a completely essential part of any long-term strategy of agricultural production.

Host Country and Other Donors: The project will be coordinated with and complementary to the very limited effort in erosion by other donors, IARCs and LDC governments. Host countries will provide counterpart and staff time.

Beneficiaries: Host country farmers, industries dependent on water, water power, and water ways will benefit directly. LDCs will benefit through a more stable and productive natural resource base which will result in a more stable economy.

FY 84 Program: To conduct 2 country assessments (erosional status and priorities for decreasing erosion). Initiate pilot tests of specific technologies in 2 countries. Provide continued technical assistance to Missions.

Major Outputs and A.I.D. Units:	All Years Units
Analyses of country erosional status and priority	8
Pilot tests of activities	5
Field Support, advisory, consulting (months)	640

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (20 person months)	$400
Logistics	200
Other costs	100
TOTAL	$700

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	–	–	–		
Estimated Fiscal Year 1982	–	–		–	
Estimated through September 30, 1982	–	–	–		USDA/Interior
Proposed FY 1983	–	–		–	
Estimated through Fiscal Year 1983	–	–	–		
Proposed FY 1984	700	Future Year Obligations: 8200	Estimated Total Cost: 8900	12/31/83 to 12/31/85	

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Raymond Meyer

TITLE	FUNDS	PROPOSED OBLIGATION (in thousands of dollars)	
Rainfed Agriculture Support Service	Agriculture, Rural Development and Nutrition	FY 84: 550	LIFE OF PROJECT: 6300
NUMBER 936-4135 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983, Annex V Centrally Funded Programs, p 24	INITIAL OBLIGATION FY 83	ESTIMATED FINAL OBLIGATION FY 92 / ESTIMATED COMPLETION DATE OF PROJECT FY 93

Purpose: To provide improved, effective, efficient, and rapid field support to A.I.D./W Missions, and host country institutions in Dryland Agriculture by developing a center of expertise in Dryland Agriculture for LDCs.

Background and Progress to Date: The project will concentrate on rainfed agricultural areas with deficient precipitation. These areas include a wide belt across central Africa, the Mediterannean, the Indian sub-continent, most of southern South America, much of Central America and parts of Asia. The project will provide additional technical support specifically in rainfed water management and moisture conservation in collaboration with projects 1007 and 1229. Project 1007 will be supported more strongly fron the soil physics discipline and 1229 more strongly from water science.

In general, conditions have forced LDC farmers to push agriculture into zones of lower rainfall and poorer soils than is considered economical. Survival agriculture obviously tolerates lower productivity. These "dryland" farmers are assuredly among the world's poorest and yet they manage a significantly large amount of the world's agricultural land. They are a social and economic force which must be included in the overall development of many countries. They are also a major factor in deterioration of natural resources.

The project will be accomplished through a Cooperative Agreement or contract whereby the recipient gains expertise in LDC dryland agriculture and irrigation and A.I.D. uses project outputs to enhance its programs in dryland agriculture and irrigation. Technical assistance will be provided to A.I.D. in the form of experienced personnel; country specific surveys of farmer constraints and available resources to remove constraints; and pilot tests of specific technologies for increasing productivity in dryland agriculture. In all activities project personnel, will work with LDC institutions, farmers, and with A.I.D. personnel in developing outputs.

Host Country and Other Donors: The project will be complementary to projects of other donors and regional projects. Host country will provide counterpoint and staff time.

Beneficiaries: LDC farmers in semi-arid regions will benefit directly through improved production. LDC's in semi-arid regions will benefit through a more stable and productive agriculture resulting in a more stable economic base.

FY 84 Program: To conduct 4 country assessments (constraint analyses through workshops) and publish results. Revise assessment methodology and select 4 additional countries for assessment. Initiate pilot tests of specific technologies for increasing productivity in two countries. Provide continued technical assistance in water management, moisture conservation and dryland management. All travel costs for technical assistance that exceeds 20 days per assistance contract will be paid by A.I.D. Missions.

Major Outputs and A.I.D. Units:	All Years Units
Analysis of existing dryland programs in LDCs	2
Country assessments	6
Pilot tests of technologies	5
Information system, handbooks	8
Field support, advisory, consulting (months)	250

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (40 person months)	$320
Training	100
Logistics	90
Other costs	40
TOTAL	$550

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		To be determined
Estimated Fiscal Year 1982	-	-		-	
Estimated through September 30, 1982	-	-	-		
Proposed FY 1983	340	250		7/1/83 to 6/30/84	
Estimated through Fiscal Year 1983	340	250	90		
Proposed FY 1984	550	Future Year Obligations	Estimated Total Cost	7/1/84 to 6/30/85	
		5360	6300		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: L. R. Frederick

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
World Rhizobium Collection Center	Agriculture, Rural Development and Nutrition	FY 84 100	LIFE OF PROJECT Continuing

NUMBER 931-0095 GRANT ☑ LOAN ☐	NEW ☐ CONTINUING ☑	PRIOR REFERENCE FY 1983, Annex V, Centrally Funded Programs, p. 22	INITIAL OBLIGATION FY 76	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To improve the capability of crops to capture nitrogen from the air by providing a germ-plasm bank of characterized and evaluated nitrogen fixing microbes of agricultural significance in biological nitrogen fixation (BNF).

Background and Progress to Date: The overall objective of the A.I.D. BNF strategy is to reduce the LDC reliance on costly nitrogen fertilizer made from fossil fuels. Effective use of BNF in agriculture has the potential of up to 20% reduction in the LDC's dependence on costly fertilizer nitrogen (about $8 billion in 1980). Effective use of BNF requires the correct strain of nitrogen-fixing bacteria (Rhizobium) and the correct legume crop variety. A superior useful strain represents an investment of at least $500,000 in collecting, screening, characterizing, evaluating in laboratory, greenhouse and field trials and farm trials. Preservation of these strains and making them available to scientists in LDCs is a great service. The United States Department of Agriculture has had a rhizobia collection for more than 50 years, but A.I.D. support is provided to make the collection worldwide in scope, especially for tropical legumes, collecting new germ plasm, by maintaining and preserving cultures, to study and evaluate cultures, to provide training and to distribute requested strains and information to researchers worldwide. Progress includes:

1. Collection continues to increase; some inputs from field trips not supported by A.I.D.; catalog published in 1979.
2. Evaluation by greenhouse and field testing is ongoing.
3. New laboratory facilities completed. New staff scientist now on permanent hire.
4. Stronger linkages with more than 10 other collections are in force.
5. Distsribution of 450 strains to researchers worldwide per year.
6. Intern training (3-12 months each) of 5 LDC scientists completed FY 81.

Host Country and Other Donors: Scientists from other countries contribute nodules and isolates of rhizobia from different legume cultivars grown under local soil conditions. They also provide information on requested cultures that they have tested. U.S.D.A. contributes about $20,000 per year for work on tropical legumes.

Beneficiaries: Tropical biological nitrogen fixation researchers worldwide (DCs and LDCs alike) for ultimate benefit of small farmers in LDCs. Cultures to many countries, trained scientists for Iraq, Thailand, Spain, Mali, Tanzania.

FY 84 Program: To continue maintenance, improvement and evaluation of worldwide rhizobia collection; to preserve strains by lyophilization to service strain requests and provide depository service, to provide intern training for 2 LDC scientists, to provide information on rhizobia cultures.

Major Outputs and A.I.D. Units:	All Years Units
Maintain & increase culture collection	1
Experiments to evaluate rhizobia cultures	25
Dissemination of rhizobia cultures	300
Linkages with international agencies	20
Intern training of LDC scientists	16

A.I.D. Financed Inputs in $000s	FY 84
Personnel (24 person months)	$ 45
Travel	10
Training (6 person months)	10
Operations	35
TOTAL	$100

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	825	600	225		U. S. Department of Agriculture, Agriculture Research Service
Estimated Fiscal Year 1982	-	150		10/1/82 to 9/30/83	
Estimated through September 30, 1982	825	750	75		
Proposed FY 1983	100	125		10/1/83 to 9/30/84	
Estimated through Fiscal Year 1983	125	875	50		
Proposed FY 1984	100	Future Year Obligations	Estimated Total Cost	10/1/84 to 9/30/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: L. R. Frederick

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
N-Fixation, Limiting Factors	Agriculture, Rural Development and Nutrition	FY 84 600	LIFE OF PROJECT 5950
NUMBER 931-0610 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983, Annex V, Centrally Funded Programs, p. 23	INITIAL OBLIGATION FY 76	ESTIMATED FINAL OBLIGATION FY 88 / ESTIMATED COMPLETION DATE OF PROJECT FY 89

Purpose: To develop practical ways to enable crops to capture nitrogen from the air by overcoming factors limiting biological nitrogen fixation (BNF). To determine solutions to problems limiting biological nitrogen fixation (BNF) in symbiotic crop-bacteria associations especially with legumes by working cooperatively with LDC scientists on factors limiting BNF utilization in their countries.

Background and Progress to Date: BNF offers an opportunity to reduce the annual multi-billion dollar need for manufactured nitrogen fertilizer. However, BNF is limited by the absence of appropriate symbiotic bacteria and other factors limiting crop growth. Failures of legume inoculants (both local and imported) are common enough to require improvement to assure reliability. Fertilizer nitrogen commonly increases yields of beans (Phaseolus vulgaris) and some other legumes, indicating a deficiency in the BNF process. Insect larvae destroy nodules. The persistence in the soil of rhizobia for one legume in a cropping system may form ineffective nodules on succeeding legumes. These and other problems can be attacked by small, discrete grants. Grants are awarded for a three-year period to provide assured support for a graduate student. Grantees are selected on the basis of their proposals; priority is given to problems identified in developing/tropical areas and to cooperative work with scientists in developing countries. A total of 41 grants have been made. Twenty grants are for cooperative work between U.S. and LDC scientists. Grants were up to $60,000 for three-year research in U.S.; up to $90,000 for three years in cooperation with overseas scientists. Project monitoring is joint between SEA/CR and A.I.D. Completion date for each separate project has been determined by SER/CR. Principal investigators meet annually for progress reports, for coordination and linkages, and to share expertise. In 1981, an international workshop with 200 participants was held at CIAT. An oil-based inoculant that shows better survival at high temperatures and in fertilizer materials is being tested for field use. Peanuts show variation in BNF ability and often need a specific strain of root nodule bacteria (rhizobia). Improved BNF can also be selected in cowpeas by breeding techniques, and a wide range of pH tolerance has been observed, indicating potential for adaptation to problem soils. BNF problems are being studied in Sudan (soil conditions, seed treatment). Egypt (salinity, phosphorus), Chile (acidity), Guyana and Thailand (inoculant production) Nigeria (inoculation, micronutrients), Morocco and Senegal (inoculation and survival), Brazil (acidity, problem soils), Panama and Mexico (inoculation), Kenya (bean nodulation).

Host Country and Other Donors: Most grants show considerable (often matching) contributions from grantees. The support from cooperating country institutions is significant, but varies from grant to grant mainly in staff time and facilities. Subgrants have been made to 34 scientists at 21 research institutions in 19 states, which are Georgia, Minnesota, Mississippi, North Carolina, Washington, Alabama, Arizona, California, Florida, Hawaii, Ohio, Oregon, Texas, Montana, Wisconsin, Iowa, New Mexico, North Dakota and West Virginia.

Beneficiaries: Directly, scientists, indirectly, small farmers in LDCs as results are incorporated into crop management. Chile ($2,000/yr.), Nigeria ($6,000/yr.), El Salvador ($5,000/yr.), Brazil ($6,000/yr.), Thailand ($6,000/yr.), Egypt ($9,000/yr.), Morocco and Senegal ($7,000/yr.), Guyana ($2,000/yr.), Panama ($2,000/yr.), Mexico ($2,000/yr.), Sudan ($6,000/yr.), Turkey ($1,000/yr.), Venezuela ($200/yr.), Malaysia ($7,000/yr.), Kenya ($1,500/yr.).

FY 84 Program: To continue research on improved inoculants and inoculation methods, on increased BNF capacity in legume varieties and rhizobia on overcoming limiting soil and pest factors with priority on overseas cooperative efforts.

Major Outputs and A.I.D. Units:	All Years Units
Subgrants to research institutions	46
Improved inoculant materials	2
Improved inoculant practices	8
Ways to overcome factors limiting biological nitrogen fixation	12
Cooperative BNF research with LDC scientists	25
Trained personnel to work on problems related to biological nitrogen fixation	44
Technical publications	50

A.I.D. Financed Inputs in $000s:	FY 84
Research subgrants	$600
TOTAL	$600

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	2900	2665	235		U. S. Department of Agriculture, Cooperative States, Research Service
Estimated Fiscal Year 1982	500	450		10/1/82 to 9/30/83	
Estimated through September 30, 1982	3400	3115	285		
Proposed FY 1983	300	400		10/1/83 to 9/30/84	
Estimated through Fiscal Year 1983	3700	3515	185		
Proposed FY 1984	600	Future Year Obligations	Estimated Total Cost	10/1/84 to 9/30/85	
		1650	5950		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: L. R. Frederick

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
N-Fixation, Symbiotic (NifTAL)	Agriculture, Rural Development and Nutrition	FY 84 1100	LIFE OF PROJECT 11380

NUMBER 931-0613 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983 Annex V, Centrally Funded Programs, p. 23	INITIAL OBLIGATION FY 75	ESTIMATED FINAL OBLIGATION FY 88	ESTIMATED COMPLETION DATE OF PROJECT FY 89

Purpose: To develop practical ways to enable tropical legume crops to capture nitrogen from the air and to increase food production by use of tropical legumes.

Background and Progress to Date: To optimize biological nitrogen fixation in tropical agriculture legumes the NifTAL project was initiated to: (a) build and test a collection of root nodule bacteria (rhizobia) so effective competitive strains could be selected for more othan 50 tropical legumes used in cropping systems, (b) train scientists in developing countries to work with rhizobia and BNF utilization, (c) conduct research on the application of BNF in cropping systems, (d) build a network of scientists through workshops, and provide culture and information exchange including a BNF Bulletin, (e) coordinate cooperative international legume inoculation trials (INLITR), and (f) provide technical assistance in research, training, legume inoculant production and distribution. The University of Hawaii has developed a facility for laboratory, greenhouse and field testing of the rhizobia-legume symbiosis. The rhizobia collection now contains more than 1500 isolates. Good strains have been identified for widely grown tropical legumes but more work is needed to select the proper strain for the different varieties of each legume. One hundred million cells of an improved strain inoculated per seed, formed most of the nodules on cowpeas, but when 100,000 cells were inoculated per seed, only a small percentage of the nodules were formed by the inoculated strain. A small amount of fertilizer nitrogen increased the total amount of nitrogen fixed in greenhouse tests. Maximum benefit from nitrogen from grain legumes is achieved by rotation rather than by intercropping. Intercropped forage legumes offer promise in the poly-crop system. In tropical soils, legumes often show yield increases when fertilizer nitrogen is added; this indicates that the nitrogen fixation system needs improvement. Inoculation methodology is being investigated in tropical soils to find better ways to inoculate. International inoculation trials are being carried out by national scientists in about 200 sites in 30 countries. Rhizobial strain trials are conducted on a cooperative basis. Seven short courses in BNF technology have been completed with 67 junior scientists trained. An intern training program has been completed for 10 scientists from eight countries. Eight graduate students have completed degrees, and three are currently in graduate programs. Three international workshops have ben held -- one in 1976, one in 1979 and one in 1981. A BNF Bulletin has been issued quarterly to disseminate current information on this subject.

Host Country and Other Donors: For international inoculation trials, host countries provide scientists, facilities, field sites, amounting to at least $1000 per site totaling an estimated $200,000 in FY 1982

Beneficiaries: Directly - scientists working with BNF and tropical legumes. As knowledge and capability to use BNF technology increases, will benefit farmers who utilize BNF through legumes in their cropping systems, and reduce the annual multi-billion dollar fertilizer N cost.

FY 84 Program: Continue all activities with reduced emphasis on building culture collection and increased emphasis on testing BNF technology in developing countries. Continue to expand international network of BNF scientists. Continue training in BNF. Increase work on BNF in cropping systems. Increase technical support.

Major Outputs and A.I.D. Units:	All Years Units
Rhizobium culture collection	1
Rhizobium strain evaluation	200
Training LDC junior scientists	200
Training Intern Scientists	40
International inoculant experiments and network	500
Inoculation methodology experiments	20
Legume N - cropping system experiments	20
Technical publications	32

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (230 person months)	$ 700
Logistics	60
Training (30 person months)	65
Operations	275
TOTAL	$1100

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated
Through September 30, 1981	3630	3453	177
Estimated Fiscal Year 1982	900	950	
Estimated through September 30, 1982	4530	4403	127
Proposed FY 1983	1150	1075	
Estimated through Fiscal Year 1983	5680	5478	202
Proposed FY 1984	1100	Future Year Obligations	Estimated Total Cost
		4000	11380

Funding Period	Principal Contractors or Agencies
3/1/82 to 11/30/82	University of Hawaii
1/1/83 to 11/15/83	
1/1/84 to 12/15/84	

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: L. R. Frederick

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
N-Fixation Associative (Non-Symbiotic)	Agriculture, Rural Development and Nutrition	FY 84 100	LIFE OF PROJECT 1277
NUMBER 931-1004 GRANT [x] LOAN [ ] NEW [ ] CONTINUING [x]	PRIOR REFERENCE FY 1983 Annex V, Centrally Funded Programs, p. 23	INITIAL OBLIGATION FY 77	ESTIMATED FINAL OBLIGATION FY 84 / ESTIMATED COMPLETION DATE OF PROJECT FY 85

Purpose: To determine practical ways to enable grasses to capture nitrogen from the air; to improve and manage associative nitrogen (N) fixation in grasses and to determine the agricultural value of N-fixation in grasses.

Background and Progress to Date: Cereal grasses are the major food crops in the world. Nitrogen is the most common nutrient limiting grass yields. Most of the fertilizer N is used on grass crops, such as rice, maize, wheat. If associative N-fixation could provide a significant portion of the N needed by the crop, the economic benefit would be tremendous. Organisms fixing N were found by Dobereiner in Brazil to be associated with grasses and to have considerable N-fixing potential. In 1975 the University of Florida organized a team of scientists (agronomists, biologists, microbiologists, soil scientists) to determine the feasibility of associative N fixation in grasses. Inoculation trials showed positive yield responses in some grasses when combined with low rates of fertilizer N, and possible contribution of 40 to 80 kg N/ha. Some varieties of grasses appear to be more responsive, indicating possible genetic relationship. Some seedling growth responses were found to be due to growth factors other than nitrogen. Surveys produced samples with high N-fixing activity, but the causative factors remain elusive. High moisture increased activity. Tissue culture showed Azospirillum grew well with some grass root cells. Putting the most promising grass with the best bacteria studied in soil under favorable environment still yields erratic but promising results. Methods to enhance survival of the bacteria in the soil are being studied. More research is needed to establish reliability in the system and to determine the feasibility of relying on the system for improved yields. If successful this program can increase the productivity of grass cereal, and crops would be worth $ billions worldwide in the LDCs.

Host Country and Other Donors: University of Florida - $200,000; USDA - $250,000/yr. University of Florida supplied advice and materials (inoculant and grass seeds) for field trials and Bahamas provided other support. Mali interested in BNF possibilities with ICRISAT and the University of Florida.

Beneficiaries: In the immediate future scientists working in biological nitrogen fixation worldwide. Indirectly, if successful, all farmers in the world. If successful, would have worldwide effect and be worth $billions.

FY 84 Program: Continue research to obtain a reliable N-fixing grass-bacteria system. Select N-fixing bacteria that establish in the root zone and release N to the plant. Select grass genotypes that harbor N-fixing bacteria and can use the N fixed. Determine the value of N-fixing system in greenhouse and field for increasing yield and N uptake. Evaluate agricultural potential, considering cost of inoculation, yield levels, soil requirements and management required.

Major Outputs and A.I.D. Units:	All Years Units
Characterization of N-fixing bacteria	50
Screen plant genotypes for BNF enhancement	1000
Define effective grass bacteria system in laboratory	6
Test grass bacteria systems in field	200
Measure amount of N_2 fixed in field trial	20
Technical publications and workshops	40

A.I.D. Financed Inputs in $000s:	FY 84
Personnel (15 person months)	$ 50
Logistics	10
Training (8 person months)	20
Operations	20
TOTAL	$100

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	927	808	119		
Estimated Fiscal Year 1982	250	200		11/30/82 to 11/30/83	University of Florida
Estimated through September 30, 1982	1177	1008	169		
Proposed FY 1983	-	150		to 11/30/83	
Estimated through Fiscal Year 1983	1177	1158	19		
Proposed FY 1984	100	Future Year Obligations	Estimated Total Cost	11/30/83 to 11/30/84	
		-	1277		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: T. S. Gill

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Fisheries and Aquaculture Technical Assistance	Agriculture, Rural Development and Nutrition	FY 84 200	LIFE OF PROJECT Continuing

NUMBER 931-0242 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE	INITIAL OBLIGATION FY 75	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing
	FY 1983 Annex V, Centrally Funded Programs, p. 23			

Purpose: To assist less developed countries in assessing fisheries development opportunities, analyzing fisheries sector problems, and formulating and implementing solutions that will lead to increases in food fish availability for LDC consumers and better income and employment opportunities for poor people in the fishery sector.

Background and Progress to Date: This project responds to the increased utilization of the marine fisheries potential resulting from the recognition of the 200 mile limit and the need for countries to deal with the problems related to the new management responsibilities in this zone. This project was initiated with the National Oceanic and Atmospheric Administration in 1976 as a means of procuring services of capable fisheries advisors and experts to assist LDCs in program management, field support and technical representation responsibilities. A wide variety of services are being provided to developing countries through field missions and regional bureaus. Technical assistance to a total of 25 countries beween FY 1976 and FY 1981, including surveys of fisheries and aquaculture development potential, project feasibility studies, design of fisheries projects, and assistance with implementation, management and evaluation projects when fisheries expertise is required. This assistance has been provided in Egypt, Sudan, Nigeria, Senegal, Mauritius, Maruitania, Oman, Morocco, Guinea, Guinea-Bissau, Cameroon, Djibouti, The Sahel, Panama, Columbia, Peru, Jamaica, Nicaragua, Dominican Republic, the Caribbean, Indonesia, Philippines and Thailand. USAIDs and other International donors have as a result of these efforts invested in new or expansion of ongoing fisheries projects. Some 350,000 tons of additional fish are projected to be produced in 4 of the LDCs that have called on this project.

Host Country and Other Donors: None

Beneficiaries: Small-scale fishermen, fishing communities, fish farmers and low-income consumers of fish and fishery products in the less developed countries are the beneficiaries, as well as the Fisheries Departments and Ministries in LDCs.

FY 84 Program: Advisory assistance will continue in approximately 12 countries. Seven new approaches will be initiated to help recipient countries regulate fish harvests in their new 200-mile fishing zones, to assist with economic aspects of aquaculture, address problems of personal income and nutrition in small scale fishing communities and to assist with management of the coastal zone and its fishery resources on a continued basis.

Major Outputs and A.I.D. Units:

	All Years Units
Country and Technical Studies	15
Professional Representation	25
Program and Project Design	30
Technical Advice	450
Analyses of Traditional Fisheries Programs	35
Workshops	20
Publications and Reports	40

A.I.D. Financed Inputs in $000s:

	FY 84
Personnel (54 person months)	$125
Logistic Support	40
Other Costs	35
TOTAL	$200

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated
Through September 30, 1981	1347	1097	250
Estimated Fiscal Year 1982	200	250	
Estimated through September 30, 1982	1547	1347	200
Proposed FY 1983	100	200	
Estimated through Fiscal Year 1983	1647	1547	100
Proposed FY 1984	200	Future Year Obligations	Estimated Total Cost
		Continuing	Continuing

Funding Period	Principal Contractors or Agencies
	Department of Commerce - National Oceanic and Atmospheric Administration
9/30/82 to 9/29/83	
9/30/83 to 9/29/84	
9/30/84 to 9/29/85	

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Norman L. Pease

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)		
Aquaculture Technology Development	Agriculture Rural Development and Nutrition	FY 84: 350	LIFE OF PROJECT: Continuing	
NUMBER 931-1314 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE: FY 1983 Annex V, Centrally Funded Programs, p. 24	INITIAL OBLIGATION FY 78	ESTIMATED FINAL OBLIGATION FY Continuing	ESTIMATED COMPLETION DATE OF PROJECT FY Continuing

Purpose: To provide technical expertise on aquaculture development problems and to maintain training services in aquaculture for less developed country fisheries workers.

Background and Progress to Date: This project, utilizing expertise developed at Auburn University under a previous 211(d) grant, supplies technical assistance and training in support of field projects. In Thailand, a cooperative program with the Department of Fisheries over a 5-year period had a significant impact on the development of local research and extension activities. In Brazil, major improvements in reservoir management, fish breeding and intensive pond culture have resulted from Auburn efforts. In th Philippines, major fisheries programs have been developed and 32% increase in yields from brackish-water production ponds have increased fish production by the rural poor by 26%. In Colombia, Auburn has played a major role in the formulation of government aquaculture programs and in implementing Colombia's new fisheries activities. A community fisheries program in Panama utilizes hog waste from a pig fattening program to feed pond fish and then utilizes the overflow to irrigate small vegetable farms. In addition, technical assistance in fisheries has been provided in Cameroon, Central African Empire, Ghana, Ivory Coast, Kenya, Liberia, Morocco, Nigeria, Rwanda, Sudan, Tanzania, Togo, Upper Volta, Zaire, Israel, Bangladesh, India, Indoensia, Philippines, Thailand, Malaysia, Pakistan, Taiwan, Vietnam, Brazil, Colombia, Costa Rica, Ecudor, Dominican Republic, Guatemala, Guyana, El Salvador, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, and Peru.

Host Country and Other Donors: The State of Alabama provides the facilities at Auburn for the training. The host countries provide facilities for training/workshops, local transportation, and other support for the technical assistance teams when they are in the country.

Beneficiaries: Small-scale fish farmers and low income consumers of fish and fishery products in the less developed countries.

FY84 Program: Grant support will be provided to Auburn to maintain their graduate school educational capacity in aquaculture; to produce 2 manuals, each year and quarterly newsletters for use in the developing countries; to provide assistantships to less developed country scientists; to present short courses and special training in developing countries and at Auburn for scientists, extensionists and fish farmers for at least 12 countries; and to provide short-term consult services on a variety of technical aspects of aquaculture.

Major Outputs and A.I.D.:	All Years Units
Professional aquaculturists receiving graduate training	150
Professional aquaculturists receiving practical training	750
Manuals, texts and newsletters	14
Assistantships	20
Short Courses	30
Consultant Services	50

A.I.D. Financed Inputs (In Thousand $)	FY 84
Personnel (120 person months)	250
Other costs	100
TOTAL	$350

U.S. FINANCING (In thousands of dollars)

	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	1,438	1,332	106		Auburn University
Estimated Fiscal Year 1982	360	340		1/1/82 to 12/31/82	
Estimated through September 30, 1982	1,798	1,672	126		
Proposed FY 1983	300	300		1/1/83 to 12/31/83	
Estimated through Fiscal Year 1983	2,098	1,972	126		
Proposed FY 1984	350	Future Year Obligations	Estimated Total Cost	1/1/84 to 12/31/85	
		Continuing	Continuing		

PROGRAM: CENTRALLY FUNDED

ACTIVITY DATA SHEET

PROJECT MANAGER: Kenneth Osborn

TITLE	FUNDS	PROPOSED OBLIGATION (In thousands of dollars)	
Fishery Development Support Services	Agriculture Rural Development and Nutrition	FY 84 325	LIFE OF PROJECT 4,000
NUMBER 936-4024 GRANT ☒ LOAN ☐ / NEW ☐ CONTINUING ☒	PRIOR REFERENCE FY 1983 Annex V, Centrally Funded Program, p. 25	INITIAL OBLIGATION FY 82	ESTIMATED FINAL OBLIGATION FY 91 / ESTIMATED COMPLETION DATE OF PROJECT FY 92

Purpose: To increase the quantity, quality and variety of fish available for consumption, and to increase income and employment for small-scale fishermen in less developed countries (LDCs).

Background: The importance of fisheries to supplies of high protein foods has long been recognized. In many LDCs, fish products represent a significant part of animal protein consumed. In certain localized situations in Asia and Africa these levels approach 55 and 24 percent, respectively. Areas that are capable of sustaining greater fishing effort can benefit from improved capture methods, and management techniques. In the tropics over 60 percent of the fish harvested from the sea may be lost due to spoilage or pest attack. Innovative methods for postharvest utilization and distribution can drastically reduce this unnecessary waste and increase the supply of animal protein available for human consumption. This is especially significant for small-scale fishermen who represent the poorest of the poor in many LDCs and who produce the bulk of fish consumed domestically. Approximately 96 percent of the fish consumed by the poor in LDCs are "wild" fish, caught in the ocean, rivers, streams and lakes.

Project Description: This project will use the small-scale fisheries capability developed at the University of Rhode Island. Technical assistance and information services will be provided in areas of fishery development, resource assessment and management, fishery technology (fishing gear, seafood handling and processing, etc.), policy and administration, and marketing and distribution to assist LDCs in designing, implementing and evaluating fishery products. In addition, long-term academic and short-term technical training of LDC technicians will be provided.

Relationship of Project to A.I.D. Strategy: A.I.D. strategy seeks to improve the nutritional status of the LDC poor. One way is by increasing the availability of inexpensive animal protein. A.I.D. also seeks to increase the employment opportunities of the rural landless poor. This project will provide a mechanism to increase fish production through exploitation and intensive management of fishery resources in rivers, lakes, reservoirs, bays and coastal waters. Since fisheries are labor intensive their developemnt will greatly increase employment opportunities as well as the nutritional status of the rural poor.

Host Country and Other Donors: These support services will be fully coordinated with assistance activities of FAO, bilateral donors, and other fishery assistance organizations. LDCs will provide local facilities, equipment and services, in support of the fisheries specialists.

FY84 Program: Continue the Cooperative Agreement started in FY82 to maintain a resource center providing advisory and consulting services; training of 40 students, applied research projects, and 250 information requests to 12 LDC institutions in fisheries development and to provide assistance to LDCs in these areas.

Major Outputs:	All Years Units
Technical Assistance in Small Scale Marine Fisheries	132
Marine Science: Graduate Training	83
Short-term Training	750
Information Dissemination Responses	13,125
Training Manuals, publications, Reports & Newsletters	154
Seminars, Conferences, and planning sessions	23

A.I.D. Financed Inputs (In Thousand $)	FY 84
Personnel (person months)	190
Logistics	50
Training (person months)	50
Other Cost	35
Total	325

U.S. FINANCING (In thousands of dollars)	Obligations	Expenditures	Unliquidated	Funding Period	Principal Contractors or Agencies
Through September 30, 1981	-	-	-		
Estimated Fiscal Year 1982	285	155		7/1/82 to 8/31/83	University of Rhode Island
Estimated through September 30, 1982	285	155	130		
Proposed FY 1983	300	250		9/1/83 to 6/30/84	
Estimated through Fiscal Year 1983	585	405	180		
Proposed FY 1984	325	Future Year Obligations	Estimated Total Cost	7/1/84 to 6/30/85	
		3,090	4,000		

Office of Agriculture - SAT/AGR

OFFICE SUMMARY
Reporting Period: 4/81 - 3/82

MONTHLY FIELD SUPPORT (FS)

Technical Advisory Assistance provided by SAT/AGR In-House Staff at the Specific Request of the Missions and Regional Bureaus

In Worker Days

	TOTAL DAYS WORKED DURING MONTH	FIELD SUPPORT (FS) DAYS PROVIDED TO REGIONAL BUREAUS, MISSIONS AND IDC's												
		Total FS Days as % of Total Days Worked	Total FS Days Provided	Subtotals-FS Days By Types of Personnel					Subtotals-FS Days by Locations		Subtotals-FS Day by Geographic Areas Effected			
				DIR.HDQ.	IPA	CONSUL.	PASA	CONTRCT	In USA	In USA	LAC	AFR	NE	ASIA
April, 1981	629	25%	158	104	-	-	54	-	76	82	62	39	25	32
May, 1981	520	28%	144	95	-	-	49	-	63	81	60	17	7	60
June, 1981	534	30%	161	87	-	-	74	-	54	107	75	24	12	50
July, 1981	491	21%	104	52	-	-	52	-	22	82	44	26	10	24
August, 1981	434	29%	128	47	-	-	81	-	50	78	52	47	15	14
September, 1981	449	27%	120	63	-	-	57	-	51	69	35	19	20	46
October, 1981	491	35%	172	75	-	-	97	-	92	80	41	54	32	45
November, 1981	470	27%	130	63	-	-	67	-	69	61	44	67	14	5
December, 1981	510	17%	84	54	1	-	29	-	25	59	53	11	5	15
January, 1982	543	20%	108	62	10	-	36	-	30	78	43	46	3	16
February, 1982	417	14%	60	24	8	-	28	-	16	44	26	17	5	12
March, 1982	360	18%	65	36	10	-	19	-	36	29	18	39	1	7
Totals (one year period)	5,848	24%	1,434	762	29	-	643	-	584	850	553	406	149	326

Office of Agriculture - S&T/AGR

OFFICE SUMMARY
Reporting Period: 4/81 - 3/82

MONTHLY FIELD SUPPORT (FS)

Technical Advisory Assistance provided under S&T/AGR Funded Projects at the Specific Request of the Missions and Regional Bureaus
In Worker Days

	TOTAL DAYS WORKED DURING MONTH	FIELD SUPPORT (FS) DAYS PROVIDED TO REGIONAL BUREAUS, MISSIONS AND LDC's												
		Total FS Days as % of Total Days Worked	Total FS Days Provided	Subtotals-FS Days By Types of Personnel					Subtotals-FS Days by Locations		Subtotals-FS Day by Geographic Areas Effected			
				DIR.HIR.	IPA	CONSUL.	PASA	CONTRACT	In LDCs	In USA	LAC	AFR	NE	ASIA
April, 1981	-	-	1,202	-	-	12	32	1,158	745	457	500	335	141	226
May, 1981	-	-	554	-	-	46	98	410	309	245	158	143	44	209
June, 1981	-	-	461	-	-	30	36	395	323	138	211	108	46	96
July, 1981	-	-	311	-	-	-	14	297	171	140	157	45	45	64
August, 1981	-	-	222	-	-	-	-	222	93	129	92	55	10	65
September, 1981	-	-	232	-	-	-	19	213	141	91	91	60	21	60
October, 1981	-	-	310	-	-	-	-	310	260	50	76	76	33	125
November, 1981	-	-	771	-	-	10	82	679	340	431	349	154	70	198
December, 1981	-	-	175	-	-	-	53	122	122	53	87	25	16	47
January, 1982	-	-	1,222	-	-	-	23	1,199	968	254	489	406	92	235
February, 1982	-	-	274	-	-	-	92	182	260	14	92	39	-	143
March, 1982	-	-	750	-	-	-	45	705	738	12	403	172	38	137
Totals (one year period)	-	-	6,484	-	-	98	494	5,892	4,470	2,014	2,705	1,618	556	1,605

ABS: FY 1984

Office of Agriculture - S&T/AGR

FIELD SUPPORT (FS) TABLE

(by Total Cost, Field Support Costs and Field Support Worker Months)

PROJECT		FY 1982			FY 1983			FY 1984		
No.	Title	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths
4111	International Ag. Research Centers	41,590	4,159	1,000	48,000	4,800	1,200	52,000	5,200	1,300
1050	ICLARM	320	32	8	300	30	8	330	33	8
0054	International Fertilizer Development Center	4,000	400	100	4,000	400	100	4,000	400	100
	Total International Ag. Research Centers	45,910	4,591	1,108	52,300	5,230	1,308	56,330	5,633	1,408
	Grand Total	73,241	19,661	3,447	77,185	18,273	3,358	91,055	24,420	4,230

ABS: FY 1984

Office of Agriculture - S&T/AGR

FIELD SUPPORT (FS) TABLE

(by Total Cost, Field Support Costs and Field Support Worker Months)

PROJECT		FY 1982			FY 1983			FY 1984		
No.	Title	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths
0600	Ag. Sector Planning & Support	485	485	97	485	485	97	400	400	80
0236	Progress Indicators - El Salvador	-	-	-	200	-	-	-	-	-
4084	Agricultural Policy Analysis	-	-	-	490	400	80	700	600	120
4117	Economics of Food Security	-	-	-	400	200	40	500	400	80
4116	Agriculture Data Management	-	-	-	-	-	-	500	400	80
0236	Water Resource Economics	87	50	10	250	200	40	300	250	50
	Total Economic Policy and Planning	572	535	107	1825	1285	257	2400	2050	410

ABS: FY 1984

Office of Agriculture - S&T/AGR

FIELD SUPPORT (FS) TABLE

(by Total Cost, Field Support Costs and Field Support Worker Months)

PROJECT		FY 1982			FY 1983			FY 1984		
No.	Title	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths
	WATER AND TROPICAL SOILS MGMT SUBPROGRAM									
1229	Soils Management Support Service	730	350	40	900	500	55	900	500	55
4054	Int'l Benchmark Sites Network	600	200	22	900	250	28	1100	350	38
4055	Tissue Cultures for Improved Food Crops	0	0	0	200	10	1	225	20	2
4121	Small Scale Irrigation Systems	-	-	-	350	100	10	350	150	15
4129	Soil Fertility Testing Program	-	-	-	-	-	-	500	400	50
4127	Water Management Synthesis II	2600	1750	150	500	350	30	1300	850	70
4130	Degradation of Productivity (Erosion/Drain)	-	-	-	-	-	-	700	200	22
4135	Rainfed Agriculture Support Service	-	-	-	340	200	22	550	330	34
0582	Soil Families-Hawaii	700	300	33	500	200	22	-	-	-
	Subprogram Total	4630	2600	245	3690	1610	168	5625	2800	286
	FERTILIZER DEVELOPMENT AND RELATED ACTIVITIES SUBPROGRAM									
0613	N-Fixation Symbiotic (Niftal)	900	200	22	1150	250	24	1100	250	24
0610	N-Fixation, Limiting Factors	500	180	18	300	110	11	600	200	20
1004	N-Fixation, Associative-Nonsymbiotic	250	5	1	0	0	0	100	0	0
0095	World Rhizobium Collection Center	0	0	0	100	10	1	100	10	1
0832	Fertilizer Technical Assistance-TVA	150	0	0	-	-	-	-	-	-
	Subprogram Total	1800	385	41	1550	370	36	1900	460	45

Office of Agriculture - S&T/AGR

FIELD SUPPORT (FS) TABLE

(by Total Cost, Field Support Costs and Field Support Worker Months)

PROJECT		FY 1982			FY 1983			FY 1984		
No.	Title	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths
	Postharvest Food Loss Subprogram									
0786	Improv. of Postharvest Grain Loss	720	350	70	650	325	63	600	300	60
1322	Farm Level Postharvest Grain Loss	-	-	-	350	175	35	450	200	40
1323	Store/Process. of Fruits/Vegetables	350	175	30	360	175	30	400	180	30
4120	Postharvest Rodent & Bird Control	-	-	-	500	225	50	650	300	60
0473	Control of Vertebrate Pests	212	100	25	-	-	-	-	-	-
1181	Aflatoxin Reduction in Maize	0	0	0	100	0	0	-	-	-
	Subprogram Total	1282	625	125	1960	900	178	2100	980	190
	Livestock Production Subprogram									
4083	Tick Resistance of Ruminants	-	-	-	250	150	28	300	290	42
0600	Mineral Studies with Ruminants	400	325	35	-	-	-	-	-	-
1038	Physiology & Ecology of Ticks	200	195	18	-	-	-	-	-	-
	Subprogram Total	600	520	53	250	150	28	300	290	42

ABS: FY 1984

Office of Agriculture - S&T/AGR

FIELD SUPPORT (FS) TABLE

(by Total Cost, Field Support Costs and Field Support Worker Months)

PROJECT		FY 1982			FY 1983			FY 1984		
No.	Title	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths
	Agricultural Production Technologies Subprogram									
0203	Seed Program & Industry Development	366	200	28	390	225	30	425	250	32
0621	Spring X Winter Wheat	835	250	30	250	150	20	150	100	8
0829	Plant and Seed Material	150	100	15	100	75	10	100	75	10
1318	Control of Barley Diseases	400	150	20	100	75	10	150	75	10
4190	Agr. Production-Technical Assistance	600	500	65	325	275	38	350	320	40
4132	Int'l. Soybean Center, Tech. Assist.	-	-	-	-	-	-	600	300	60
0560	Dev. of Improved Varieties of Soybeans	835	0	0	835	0	0	-	-	-
4134	Roots and Tuber-Tech. Assistance	-	-	-	-	-	-	500	250	50
	Subprogram Total	3186	1200	158	2000	800	108	2275	1370	210
	Pest and Pesticide Management Subprogram									
0206	Weed Control Utilization	450	337	82	430	322	40	400	296	38
0930	Pest Management - Related Envir. Prot.	810	600	90	850	633	95	900	666	100
0614	Pest Management - Root-Knot Nematodes	606	450	123	455	342	93	-	-	-
4071	Pest Management Capability - RSSA	164	123	30	175	131	32	-	-	-
	Subprogram Total	2024	1510	325	1910	1428	260	1300	962	138

Office of Agriculture - S&T/AGR

FIELD SUPPORT (FS) TABLE

(by Total Cost, Field Support Costs and Field Support Worker Months)

PROJECT		FY 1982			FY 1983			FY 1984		
No.	Title	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths
	FISHERIES AND AQUACULTURE SUBPROGRAM									
0242	Fisheries and Aquaculture Dev. (NOAA)	200	100	20	100	50	10	200	100	20
1314	Aquaculture Technology Development	360	360	80	300	300	60	350	350	75
4024	Fisheries Development Support Service	285	285	55	300	300	60	325	325	66
	Subprogram Total	845	745	155	700	650	130	875	775	161

ABS: FY 1984

Office of Agriculture - S&T/AGR

FIELD SUPPORT (FS) TABLE

(by Total Cost, Field Support Costs and Field Support Worker Months)

PROJECT		FY 1982			FY 1983			FY 1984		
No.	Title	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths	Total $000	FS $000	FS Mnths
	Collaborative Research Support Program - CRSP									
1254	CRSP - Sorghum and Millet	600	1000	75	2200	1000	75	3500	1000	75
1255	CRSP - Beans and Cowpeas	1100	550	50	1500	750	60	3200	1600	120
1311	CRSP - Soil Management	2700	1800	280	1800	1200	200	2350	1600	260
1328	CRSP - Small Ruminants	3200	2000	410	2400	2200	430	3600	3000	580
4023	CRSP - Fisheries - Pond Dynamics	650	0	0	750	0	0	700	0	0
4026	CRSP - Fisheries - Stock Assessment	350	-	-	-	-	-	500	0	0
4046	CRSP - Peanuts	900	100	15	1950	400	60	2000	500	75
	CRSP Total	10500	5450	830	10600	5550	825	15850	7700	1110
	Farming Systems Subprogram									
4099	Farming Systems Support	1892	1500	300	400	300	60	1300	1000	200
4133	Mixed Livestock Crop Systems Res.	-	-	-	-	-	-	800	400	30
	Subprogram Total	1892	1500	300	400	300	60	2100	1400	230

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84
SUMMARY

NEAR EAST OFFICE: ST/AGR

COUNTRY	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
MOROCCO		221	2	16	6		60	0	6	3		245	3	14	7
GREECE		0	0	0	0		50	0	4	0		0	0	0	0
EGYPT		163	1	22	8		235	1	26	9		34	0	21	11
TUNISIA		5	0	9	2		11	0	5	5		19	0	7	2
ISRAEL		1	0	2	0		1	0	2	0		0	0	2	0
SYRIA		35	0	7	12		36	0	9	2		46	0	10	2
TURKEY		6	0	6	2		26	0	7	4		6	0	5	2
JORDAN		20	0	5	0		35	0	6	1		15	0	3	1
NEAR EAST REGIONAL - DA		0	0	0	0		0	0	0	0		30	0	1	0
TOTAL FOR REGION:		451	3	67	30		454	1	65	24		395	3	63	25

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84
SUMMARY

SOUTH ASIA — OFFICE: ST/AOR

COUNTRY	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAFF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAFF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAFF	FY 1984 #OF TDYS	FY 1984 #OF PTP
NEPAL		10	0	2	6		55	0	6	10		80	0	4	6
SRI LANKA		272	0	16	10		82	0	9	3		153	0	3	1
INDIA		452	3	44	9		460	2	32	5		373	0	24	6
BANGLADESH		113	1	11	2		285	4	14	10		160	0	4	1
PAKISTAN		47	0	6	1		425	4	7	3		350	0	2	1
TOTAL FOR REGION:		894	4	79	28		1307	10	68	31		1116	0	37	15

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COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84
SUMMARY

EAST ASIA

OFFICE: SI/AGR

COUNTRY	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
NORTH KOREA		2	0	1	5		0	0	0	0		0	0	0	0
BURMA		20	0	2	0		42	0	7	2		63	0	4	2
MALAYSIA		10	0	4	3		9	0	4	3		7	0	3	1
TAIWAN		0	0	1	2		0	0	1	3		3	0	1	0
KOREA		1	0	0	3		0	0	2	1		0	0	0	2
PHILIPPINES		982	22	52	50		954	15	49	74		553	6	36	15
THAILAND		423	11	37	22		414	46	46	26		425	6	30	19
INDONESIA		762	12	43	12		701	10	39	42		690	6	32	18
ASIA REGIONAL		0	0	0	0		0	0	0	0		50	0	2	0
TOTAL FOR REGION:		2200	45	140	97		2120	71	148	151		1791	18	108	57

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84
SUMMARY

LATIN AMERICA — OFFICE: ST/AGR

COUNTRY	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
GUYANA		1	0	1	0		0	0	0	0		0	0	1	0
SURINAME		1	0	1	0		1	0	1	0		0	0	0	0
ARGENTINA		0	0	2	0		0	0	2	0		0	0	0	0
BOLIVIA		2	0	2	0		2	0	2	1		0	0	0	0
BRAZIL		281	4	27	7		246	4	26	8		222	6	22	11
CHILE		0	0	2	0		10	0	4	0		90	0	2	25
COLOMBIA		4	0	2	2		0	0	2	3		0	0	1	1
COSTA RICA		182	2	11	50		294	4	16	72		0	0	2	1
DOMINICAN REPUBLIC		149	2	15	14		308	3	20	15		10	0	9	4
ECUADOR		15	5	15	9		226	0	14	14		20	0	11	6
EL SALVADOR		201	4	2	0		0	4	1	0		0	0	0	0
GUATEMALA		1	0	11	2		26	0	8	4		0	0	7	3
HAITI		10	1	6	1		45	1	10	3		15	0	7	1
HONDURAS		170	2	15	5		194	2	18	7		164	2	18	8
MEXICO		6	0	8	3		18	0	9	3		19	0	12	4
NICARAGUA		0	0	0	0		0	0	0	1		0	0	1	1
PANAMA		235	1	14	3		99	1	7	5		249	2	11	7
PARAGUAY		3	0	1	1		4	0	1	1		2	0	1	0
PERU		605	8	36	31		585	8	39	15		297	6	25	9
URUGUAY		1	0	1	0		2	0	1	1		0	0	0	0
VENEZUELA		18	0	4	2		24	0	5	2		32	0	5	3
JAMAICA		50	0	6	2		120	1	10	4		115	1	10	4
TRINIDAD AND TOBAGO		28	2	5	1		24	1	4	1		24	1	4	1
ROCAP		0	0	0	0		5	0	1	0		5	0	1	0

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84
SUMMARY

LATIN AMERICA									OFFICE: ST/AGR			
LAC REGIONAL	0	0	0	0	0	0	0	0	/0	0	4	0
TOTAL FOR REGION:	1963	31	187	133	2233	29	201	160	1334	16	154	89

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA _ FY 82 THRU 84
SUMMARY

AFRICA

OFFICE: ST/AGR

COUNTRY	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ZAMBIA		0	0	1	0		1	0	3	3		2	0	2	3
MALAWI		1	0	7	4		27	0	8	6		0	0	7	3
ZIMBABWE		0	0	0	0		0	0	1	0		0	0	1	1
KENYA		10282	204	227	32		755	10	35	58		565	9	26	11
NIGERIA		108	0	19	7		81	0	14	3		50	0	13	3
TANZANIA		40	0	10	4		85	0	12	5		30	0	12	6
CAMEROON		200	2	23	4		215	3	20	4		95	2	17	3
BOTSWANA		1	1	1	0		0	0	1	0		0	1	6	2
SIERRA LEONE		95	1	3	2		95	1	3	2		90	1	4	3
ALGERIA		1	0	4	1		11	0	4	2		1	0	4	2
GHANA		0	0	0	0		0	0	1	1		0	0	1	0
SOMALIA		15	0	1	0		15	20	3	1		0	0	0	0
SUDAN		79	2	23	3		430	3	25	42		376	4	27	8
ZAIRE		5	0	1	0		10	0	2	0		20	0	3	2
LIBYA		0	0	0	0		0	0	0	0		2	0	1	0
MAURITANIA		0	0	0	0		2	0	0	200		0	0	0	0
NIGER		250	2	9	8		300	3	12	13		55	0	6	1
SENEGAL		151	0	18	4		102	0	15	6		227	2	20	6
MALI		25	0	5	2		25	20	10	3		25	0	9	2
RWANDA		205	1	7	27		105	1	5	2		100	1	6	3
AFRICA REGIONAL		0	0	0	0		80	0	3	0		180	1	3	0
TOTAL FOR REGION:		11458	213	359	98		2339	61	177	351		1818	21	168	59

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84
SUMMARY

PROJECT SERVICES AT MISSION OR BUREAU REQUEST

OFFICE: SI/AGR

COUNTRY	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
SERVICES AT MISSION / BUREAU R		0	0	0	0		0	0	0	0		0	0	0	0
TOTAL FOR REGION:		0	0	0	0		0	0	0	0		0	0	0	0

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA _ FY 82 THRU 84
SUMMARY

OFFICE: ST/AGR

COUNTRY	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
SO PACIFIC REGIONAL		0	0	0	0		0	0	0	0		1	0	1	0
FIJI		20	0	2	10		5	0	1	0		5	0	1	0
PAPUA NEW GUINEA		10	0	2	0		25	0	3	10		5	0	1	0
TOTAL FOR REGION:		30	0	4	10		30	0	4	10		11	0	3	0

NEAR EAST -ST/AGR

COUNTRY: MOROCCO

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
SPRING AND WINTER WHEAT																
931-0621.		A	20	0	4	1	A	10	0	2	1	A	10	0	2	1
SYNTHESIS OF WATER MANAGEMENT																
931-1007.			0	0	0	0	B	30	0	1	0		0	0	0	0
CONTROL OF BARLEY DISEASES FOR LDCS																
931-1316.		A	1	0	2	2	A	15	0	2	2	A	15	0	2	2
CRSP_PROG: SMALL RUMINANTS																
931-1328.		A	200	2	10	3	B	5	0	1	0	A	220	3	10	4
COUNTRY TOTAL:			221	2	16	6		60	0	6	3		245	3	14	7

COUNTRY: GREECE

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
PEST MGT - ROOTKNOT NEMATODE																
931_0614.			0	0	0	0	B	50	0	4	0		0	0	0	0
COUNTRY TOTAL:			0	0	0	0		50	0	4	0		0	0	0	0

COUNTRY: EGYPT

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
WORLD RHIZOBIUM COLLECTION CENTER																
931-0095.		A	0	0	0	1	A	0	0	0	1	B	0	0	1	1
TROPICAL SOILS BNF - HAWAII																
931-0129.		A B	0	0	0	2		0	0	0	0		0	0	0	0
PLNG ASST: WATER RESOURCES ECONOMICS																
931_0236.19		A	50	0	3	0	A	50	0	3	0		0	0	0	0
CONTROL OF VERTEBRATE PESTS																
931_0473.		B	75	1	1	1	B	75	1	1	1		0	0	0	0

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA _ FY 82 THRU 84

NEAR EAST

PROJECT TITLE	ST/AGR	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
N-FIXATION LIMITING FACTORS 931-0610.	A	A	9	0	3	1	A	9	0	3	1	B	0	0	3	1
N-FIXATION - SYMBIOTIC 931-0613.	A	A	0	0	1	1	B	0	0	1	1	B	0	0	1	1
SYNTHESIS OF WATER MANAGEMENT 931-1007.	B		0	0	0	0	B	50	0	2	0		0	0	0	0
ICLARM _ FISHERIES DEVELOPMENT _ CG 931-1050.	A	A	20	0	4	0	A	20	0	4	2	A	10	0	4	4
CRSP - PROGRAM SORGHUM/MILLET 931-1254.	A	A	0	0	6	1	A	10	0	6	2	A	10	0	6	2
CONTROL OF BARLEY DISEASES FOR LDCS 931-1318.	A	A	1	0	2	1	A	1	0	2	1	A	1	0	2	1
CRSP_PROG: SMALL RUMINANTS 931-1328.	B	B	8	0	2	0	B	20	0	4	0	A	10	0	3	1
TISSUE CULTURES FOR FOOD PROD. 936-4055.			0	0	0	0		0	0	0	0	B	3	0	1	0
COUNTRY TOTAL:			163	1	22	8		235	1	26	9		34	0	21	11

COUNTRY: TUNISIA

PROJECT TITLE	ST/AGR	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
N-FIXATION - SYMBIOTIC 931_0613.CI	A	A	0	0	1	0	B	0	0	1	2	B	0	0	1	0
SPRING AND WINTER WHEAT 931-0621.	A	A	4	0	6	0	A	10	0	2	1	A	4	0	4	0
CONTROL OF BARLEY DISEASES FOR LDCS 931-1318.	A	A	1	0	2	2	A	1	0	2	2	A	15	0	2	2
COUNTRY TOTAL:			5	0	9	2		11	0	5	5		19	0	7	2

COUNTRY: ISRAEL

PROJECT TITLE	ST/AGR	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
CONTROL OF BARLEY DISEASES FOR LDCS 931-1318.	A	A	1	0	2	0	A	1	0	2	0	A	0	0	2	0
COUNTRY TOTAL:			1	0	2	0		1	0	2	0		0	0	2	0

A _ ACTIVE B _ PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

NEAR EAST _ST/AGR

COUNTRY: SYRIA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
	IMPROVED FEED NUTRITION INFORMATION															
931-0650.		A	4	0	1	5		0	0	0	0		0	0	0	0
	SOILS MANAGEMENT SUPPORT SERVICES															
931-1229.		A	25	0	3	5	A	20	0	4	0	A	25	0	5	0
	CONTROL OF BARLEY DISEASES FOR LDCS															
931-1318.		A	1	0	2	2	A	1	0	2	2	A	1	0	2	0
	CRSP-PROG: SMALL RUMINANTS															
931-1328.			0	0	0	0	B	5	0	1	0		0	0	0	0
	INTERNATIONAL BENCHMARK SITES															
936-4054.		B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
COUNTRY TOTAL:			35	0	7	12		36	0	9	2		46	0	10	2

COUNTRY: TURKEY

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
	N-FIXATION LIMITING FACTORS															
931-0610.		A	5	0	1	0	B	5	0	2	1	B	5	0	1	0
	N-FIXATION - SYMBIOTIC															
931-0613.C1		A	0	0	1	0	B	0	0	1	0		0	0	0	0
	SPRING AND WINTER WHEAT															
931-0621.		A	0	0	2	1	A	20	0	2	2	A	0	0	2	1
	CONTROL OF BARLEY DISEASES FOR LDCS															
931-1318.		A	1	0	2	1	A	1	0	2	1	A	1	0	2	1
COUNTRY TOTAL:			6	0	6	2		26	0	7	4		6	0	5	2

COUNTRY: JORDAN

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																

A - ACTIVE B - PENDING MISSION APPROVAL

NEAR EAST		FY 1982				FY 1983				FY 1984			
PROJECT TITLE	ST/AGR STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
PEST MGT - ROOTKNOT NEMATODE															
931-0614.	B	15	0	2	0	B	20	0	3	0		0	0	0	0
SPRING AND WINTER WHEAT															
931-0621.	A	0	0	2	0	A	10	0	2	1	A	10	0	2	1
SOILS MANAGEMENT SUPPORT SERVICES															
931-1229.	A	5	0	1	0	A	5	0	1	0	A	5	0	1	0
COUNTRY TOTAL:		20	0	5	0		35	0	6	1		15	0	3	1

COUNTRY: NEAR EAST REGIONAL - DA

PROJECT TITLE	ST/AGR STA TUS	FY 1982 AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
SMALL SCALE IRRIGATION SYSTEMS															
936-4121.		0	0	0	0		0	0	0	0	B	30	0	1	0
COUNTRY TOTAL:		0	0	0	0		0	0	0	0		30	0	1	0
TOTAL FOR REGION:		451	3	67	30		454	1	65	24		395	3	63	25

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

SOUTH ASIA -ST/AGR

COUNTRY: NEPAL

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
N_FIXATION _ SYMBIOTIC																
931-0613.CI			0	0	0	0	B	10	0	1	2	B	0	0	1	0
SYNTHESIS OF WATER MANAGEMENT																
931-1007.			0	0	0	0	B	30	0	2	2	B	60	0	0	0
SOILS MANAGEMENT SUPPORT SERVICES																
931-1229.		B	10	0	2	6	B	15	0	3	6	B	20	0	3	6
COUNTRY TOTAL:			10	0	2	6		55	0	6	10		80	0	4	6

COUNTRY: SRI LANKA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
INT'L FERTILIZER DEVELOPMENT CTR _ CG																
931_0054.		A	11	0	2	0	B	12	0	2	0		0	0	0	0
TROPICAL SOILS BNF - CORNELL																
931_0127.		A	0	0	0	1		0	0	0	0		0	0	0	0
TROPICAL SOILS BNF - HAWAII																
931_0129.		A	0	0	1	0		0	0	0	0		0	0	0	0
TROPICAL SOILS BNF - NCSU																
931_0130.		A	1	0	0	1	B	0	0	1	0		0	0	0	0
N-FIXATION - SYMBIOTIC																
931-0613.		A	0	0	2	0	B	0	0	2	1	B	0	0	2	1
SYNTHESIS OF WATER MANAGEMENT																
931_1007.		A	250	0	10	6	A	50	0	2	0	B	150	0	0	0
INTEGRATED CROP PROTECTION RESEARCH																
936-4049.		B	10	0	1	2	B	20	0	2	2		0	0	0	0
TISSUE CULTURES FOR FOOD PROD.																
936-4055.			0	0	0	0		0	0	0	0	B	3	0	1	0
COUNTRY TOTAL:			272	0	16	10		82	0	9	3		153	0	3	1

COUNTRY: INDIA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP

A _ ACTIVE B _ PENDING MISSION APPROVAL

SOUTH ASIA

ST/AGR

PROJECT	TITLE	STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
931-0050.	IMPROVED FEED NUTRITION INFORMATION	A	2	0	3	1		0	0	0	0		0	0	0	0
931-0054.	INT'L FERTILIZER DEVELOPMENT CTR - CG	A	55	0	10	0	B	60	0	10	0		0	0	0	0
931-0236.19	PLNG ASST: WATER RESOURCES ECONOMICS	A	100	0	1	0	A	100	0	1	0		0	0	0	0
931-0613.	N-FIXATION - SYMBIOTIC	A	0	0	2	2	B	0	0	2	1	B	0	0	2	1
931-1007.	SYNTHESIS OF WATER MANAGEMENT	A	200	0	8	5	A	250	2	3	0	B	300	0	0	0
931-1229.	SOILS MANAGEMENT SUPPORT SERVICES	A	10	0	2	0	A	20	0	3	2	A	30	0	6	2
931-1254.	CRSP - PROGRAM SORGHUM/MILLET	A	75	1	15	0	A	10	0	10	0	A	10	0	10	0
936-4021.	DRYLAND AGRICULTURE SUPPORT SERVICE	A	0	2	1	0		0	0	0	0		0	0	0	0
936-4054.	INTERNATIONAL BENCHMARK SITES	B	10	0	2	0	B	20	0	3	2	B	30	0	5	3
936-4055.	TISSUE CULTURES FOR FOOD PROD.	B	0	0	0	1		0	0	0	0	B	3	0	1	0
COUNTRY TOTAL:			452	3	44	9		460	2	32	5		373	0	24	6

COUNTRY: BANGLADESH

PROJECT	TITLE	STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
931-0054.	INT'L FERTILIZER DEVELOPMENT CTR - CG	A	33	0	6	0	B	35	0	6	0		0	0	0	0
931-0127.	TROPICAL SOILS BNF - CORNELL		0	0	0	0	A	0	0	0	1		0	0	0	0
931-0473.	CONTROL OF VERTEBRATE PESTS	A	50	1	1	0	A	100	2	2	2		0	0	0	0
931-0613.	N-FIXATION - SYMBIOTIC	A	0	0	1	0	B	0	0	2	1	B	0	0	2	1
931-1007.	SYNTHESIS OF WATER MANAGEMENT	A	30	0	3	2	A	120	2	2	6	B	150	0	0	0
931-1229.	SOILS MANAGEMENT SUPPORT SERVICES		0	0	0	0	B	5	0	1	0	B	10	0	2	0
936-4120.	POSTHARVEST RODENT AND BIRD CONTROL		0	0	0	0	A	25	0	1	0		0	0	0	0
COUNTRY TOTAL:			113	1	11	2		285	4	14	10		160	0	4	1

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA _ FY 82 THRU 84

SOUTH ASIA -ST/AGR

COUNTRY: PAKISTAN

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
931-0050.	IMPROVED FEED NUTRITION INFORMATION	A	2	0	1	1		0	0	0	0		0	0	0	0
931_0095.	WORLD RHIZOBIUM COLLECTION CENTER		0	0	0	0	B	0	0	1	0		0	0	0	0
931_0236.FY	PLNG ASST: WATER RESOURCES ECONOMICS	A	25	0	2	0	A	25	0	2	0		0	0	0	0
931_0613.	N-FIXATION - SYMBIOTIC	A	0	0	2	0	B	0	0	2	1	B	0	0	2	1
931_1007.	SYNTHESIS OF WATER MANAGEMENT	A	20	0	1	0	A	400	4	2	2	B	350	0	0	0
COUNTRY TOTAL:			47	0	6	1		425	4	7	3		350	0	2	1
TOTAL FOR REGION:			894	4	79	28		1307	10	68	31		1116	0	37	15

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA _ FY 82 THRU 84

EAST ASIA -ST/AGR

COUNTRY: NORTH KOREA

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
931-0050.	IMPROVED FEED NUTRITION INFORMATION	A	2	0	1	5		0	0	0	0		0	0	0	0
COUNTRY TOTAL:			2	0	1	5		0	0	0	0		0	0	0	0

COUNTRY: BURMA

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
931-0613.C1	N-FIXATION - SYMBIOTIC	A	0	0	1	0	B	2	0	3	2	B	3	0	2	2
931-1007.	SYNTHESIS OF WATER MANAGEMENT	A	20	0	1	0	A	30	0	2	0	B	50	0	0	0
931-1229.	SOILS MANAGEMENT SUPPORT SERVICES		0	0	0	0	B	10	0	2	0	B	10	0	2	0
COUNTRY TOTAL:			20	0	2	0		42	0	7	2		63	0	4	2

COUNTRY: MALAYSIA

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
931-0130.	TROPICAL SOILS BNF - NCSU	A	1	0	0	1		0	0	0	0		0	0	0	0
931-0600.	MINERAL STUDIES WITH RUMINANT ANIMALS	A	2	0	1	1	A	2	0	1	1		0	0	0	0
931-0610.	N-FIXATION LIMITING FACTORS	A	7	0	2	1	A	7	0	2	1	A	7	0	2	1
931-0613.	N-FIXATION - SYMBIOTIC	A	0	0	1	0	B	0	0	1	1	B	0	0	1	0
COUNTRY TOTAL:			10	0	4	3		9	0	4	3		7	0	3	1

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

EAST ASIA — ST/AGR

COUNTRY: TAIWAN

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
931_0127.	TROPICAL SOILS BNF - CORNELL	A	0	0	0	1	A	0	0	0	1		0	0	0	0
931-0600.	MINERAL STUDIES WITH RUMINANT ANIMALS	B	0	0	1	1	B	0	0	1	2		0	0	0	0
936-4055.	TISSUE CULTURES FOR FOOD PROD.		0	0	0	0		0	0	0	0	B	3	0	1	0
COUNTRY TOTAL:			0	0	1	2		0	0	1	3		3	0	1	0

COUNTRY: KOREA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
931-0621.	SPRING AND WINTER WHEAT	A	0	0	0	1	A	0	0	2	0	A	0	0	0	1
931-1318.	CONTROL OF BARLEY DISEASES FOR LDCS	A	1	0	0	2	A	0	0	0	1	A	0	0	0	1
COUNTRY TOTAL:			1	0	0	3		0	0	2	1		0	0	0	2

COUNTRY: PHILIPPINES

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
931-0050.	IMPROVED FEED NUTRITION INFORMATION	A	3	0	2	10		0	0	0	0		0	0	0	0
931_0129.	TROPICAL SOILS BNF - HAWAII	A B	2	0	4	0		0	0	0	0		0	0	0	0
931-0206.	WEED CONTROL UTILIZATION	A	150	3	4	25	A	175	3	5	30		0	0	0	0
931-0463.	WEED CONTROL SYSTEMS IN LDCS		0	0	0	0		0	0	0	0		0	0	0	0

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

EAST ASIA						_ST/AGR									
CONTROL OF VERTEBRATE PESTS															
931-0473.	A	75	2	2	1	A	125	2	1	1		0	0	0	0
SOIL FAMILIES - HAWAII															
931-0582.	A	150	1	8	2	A	75	1	4	0	A	5	0	2	0
MINERAL STUDIES WITH RUMINANT ANIMALS															
931_0600.	A	4	0	1	0	A	4	0	2	0		0	0	0	0
N-FIXATION - SYMBIOTIC															
931_0613.C1	A	0	0	2	2	B B	0	0	4	4	B	0	0	2	1
DETERMINANTS OF IRRIGATION PROBLEMS															
931-1005.	A	10	1	1	0		0	0	0	0		0	0	0	0
SYNTHESIS OF WATER MANAGEMENT															
931-1007.		0	0	0	0	B	30	0	1	0	B	60	0	0	0
AGRICULTURAL MECHANIZATION															
931-1026.	A	113	8	1	0		0	0	0	0		0	0	0	0
ICLARM - FISHERIES DEVELOPMENT - CG															
931-1050.	A	200	4	4	4	A	200	4	4	6	A	200	4	4	6
SOILS MANAGEMENT SUPPORT SERVICES															
931-1229.	A	25	0	5	0	A	25	0	5	0	A	30	0	6	0
CRSP - PROGRAM SORGHUM/MILLET															
931-1254.	A	75	1	5	0	A	50	1	6	0	A	50	0	5	0
CRSP POND DYNAMICS															
936-4023.	A	115	2	5	4	A	125	2	5	4	A	115	2	5	5
CRSP: PROGRAM PEANUTS															
936-4046.	B	50	0	6	2	A	50	0	6	2	A	60	0	6	0
INTERNATIONAL BENCHMARK SITES															
936-4054.	B	10	0	2	0	B	20	0	3	2	B	30	0	5	3
TISSUE CULTURES FOR FOOD PROD.															
936-4055.		0	0	0	0		0	0	0	0	B	3	0	1	0
POSTHARVEST RODENT AND BIRD CONTROL															
936-4120.		0	0	0	0	A	75	2	3	25		0	0	0	0
COUNTRY TOTAL:		982	22	52	50		954	15	49	74		553	6	36	15

COUNTRY: THAILAND

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
	ST/AGR															
IMPROVED FEED NUTRITION INFORMATION																
931-0050.		A	2	0	1	10		0	0	0	0		0	0	0	0
TROPICAL SOILS BNF - HAWAII																
931-0129.		A	2	0	2	0		0	0	0	0		0	0	0	0
TROPICAL SOILS BNF - NCSU																
931-0130.			0	0	0	0	B	1	0	5	0		0	0	0	0
WEED CONTROL UTILIZATION																
931_0206.		A	15	1	3	5	A	25	1	3	5		0	0	0	0
PLNG ASST: WATER RESOURCES ECONOMICS																
931_0236.19		A	75	0	1	0	A	75	0	1	0		0	0	0	0

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

PROJECT	TITLE	STA FUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PIP	STA FUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PIP	STA FUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PIP
EAST ASIA							-ST/AGR									
WEED CONTROL SYSTEMS IN LDCS																
931-0463.			0	0	0	0		0	0	0	0		0	0	0	0
MINERAL STUDIES WITH RUMINANT ANIMALS																
931-0600.		A	3	0	1	0	A	3	0	2	1		0	0	0	0
N-FIXATION LIMITING FACTORS																
931-0610.		A	0	0	1	1		0	0	0	0	B	0	0	1	1
N-FIXATION - SYMBIOTIC																
931-0613.		A	17	0	4	0	B	65	2	10	4	B	40	2	5	0
SYNTHESIS OF WATER MANAGEMENT																
931-1007.		A	40	0	3	0	A	30	0	3	2	B	120	0	0	0
AGRICULTURAL MECHANIZATION																
931-1026.		A	59	6	0	0		0	0	0	0		0	0	0	0
ICLARM - FISHERIES DEVELOPMENT - CG																
931-1050.		A	60	1	4	2	A	50	2	4	4	A	70	2	8	6
SOILS MANAGEMENT SUPPORT SERVICES																
931-1229.		A	30	0	6	0	A	30	0	3	6	A	30	0	3	6
DRYLAND AGRICULTURE SUPPORT SERVICE																
936-4021.		A	0	2	1	0	A	0	40	4	0		0	0	0	0
CRSP POND DYNAMICS																
936-4023.		A	65	1	3	2	A	75	1	3	2	A	70	1	4	3
CRSP: PROGRAM PEANUTS																
936-4048.		B	50	0	6	2	A	50	0	6	2	A	75	1	6	1
INTERNATIONAL BENCHMARK SITES																
936-4054.		B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
COUNTRY TOTAL:			423	11	37	22		414	46	46	26		425	6	30	19

COUNTRY: INDONESIA

PROJECT	TITLE	STA FUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PIP	STA FUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PIP	STA FUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PIP
	ST/AGR															
TROPICAL SOILS BNF - HAWAII																
931-0129.		A	0	0	1	0		0	0	0	0		0	0	0	0
CONTROL OF VERTEBRATE PESTS																
931-0473.		B	0	0	1	1	B	75	1	1	2		0	0	0	0
SOIL FAMILIES - HAWAII																
931-0582.		A	150	1	8	2	A	75	1	4	0	A	5	0	2	0
MINERAL STUDIES WITH RUMINANT ANIMALS																
931-0600.		A	3	0	2	0	A	1	0	2	1		0	0	0	0
N-FIXATION - SYMBIOTIC																
931-0613.C1		A	0	0	1	2	B	0	0	1	2	B	0	0	1	1
PEST MGT - ROOTKNOT NEMATODE																
931-0614.			0	0	0	0		0	0	0	0		0	0	0	0
DETERMINANTS OF IRRIGATION PROBLEMS																
931-1005.		A	20	1	2	0		0	0	0	0		0	0	0	0
SYNTHESIS OF WATER MANAGEMENT																
931-1007.			0	0	0	0	B	40	0	2	0	B	80	0	0	0
AGRICULTURAL MECHANIZATION																
931-1026.		A	59	6	0	0		0	0	0	0		0	0	0	0

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

EAST ASIA						ST/AGR								
ICLARM - FISHERIES DEVELOPMENT - CG														
931-1050.	A	40	0	4	1	A	30	1	4	2	A	50	1	4	4
SOILS MANAGEMENT SUPPORT SERVICES														
931-1229.	A	15	0	3	0	A	20	0	4	0	A	25	0	5	0
FARM LVL POSTHARVEST GRAIN STORAGE LOSS														
931_1322.	B	25	0	3	0	B	100	2	5	25		0	0	0	0
CRSP-PROG: SMALL RUMINANTS														
931_1328.	A	170	2	7	2	A	200	3	7	2	A	180	2	6	3
CRSP POND DYNAMICS														
936_4023.	A	120	2	5	4	A	130	2	5	4	A	120	2	5	5
CRSP: STOCK ASSESSMENT FISHERIES														
936_4026.	B	150	0	4	0		0	0	0	0	A	200	1	4	2
INTEGRATED CROP PROTECTION RESEARCH														
936_4049.	B	0	0	0	0	B	10	0	1	2		0	0	0	0
INTERNATIONAL BENCHMARK SITES														
936-4054.	B	10	0	2	0	B	20	0	3	2	B	30	0	5	3
COUNTRY TOTAL:		762	12	43	12		701	10	39	42		690	6	32	18

COUNTRY: ASIA REGIONAL

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
	ST/AGR															
SMALL SCALE IRRIGATION SYSTEMS																
936_4121.			0	0	0	0		0	0	0	0	B	50	0	2	0
COUNTRY TOTAL:			0	0	0	0		0	0	0	0		50	0	2	0
TOTAL FOR REGION:			2200	45	140	97		2120	71	148	151		1791	18	108	57

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

LATIN AMERICA ST/AGR

COUNTRY: GUYANA

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
N-FIXATION LIMITING FACTORS 931_0610.		A	1	0	1	0		0	0	0	0	B	0	0	1	0
COUNTRY TOTAL:			1	0	1	0		0	0	0	0		0	0	1	0

COUNTRY: SURINAME

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
MINERAL STUDIES WITH RUMINANT ANIMALS 931-0600.		B	1	0	1	0	B	1	0	1	0		0	0	0	0
COUNTRY TOTAL:			1	0	1	0		1	0	1	0		0	0	0	0

COUNTRY: ARGENTINA

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
SPRING AND WINTER WHEAT 931-0621.		A	0	0	2	0	A	0	0	2	0		0	0	0	0
COUNTRY TOTAL:			0	0	2	0		0	0	2	0		0	0	0	0

COUNTRY: BOLIVIA

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

LATIN AMERICA

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
	ST/AGR															
931_0525.	AGRO-ECON RESEARCH ON TROPICAL SOILS		0	0	0	0		0	0	0	0		0	0	0	0
931_0600.	MINERAL STUDIES WITH RUMINANT ANIMALS	A	2	0	2	0	A	2	0	2	1		0	0	0	0
COUNTRY TOTAL:			2	0	2	0		2	0	2	1		0	0	0	0

COUNTRY: BRAZIL

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
	ST/AGR															
931-0525.	AGRO_ECON RESEARCH ON TROPICAL SOILS		0	0	0	0		0	0	0	0		0	0	0	0
931-0600.	MINERAL STUDIES WITH RUMINANT ANIMALS	A	1	0	1	0	B	1	0	1	2		0	0	0	0
931_0610.	N-FIXATION LIMITING FACTORS	A	10	0	4	1	A	10	0	3	0	B	10	0	2	1
931_0613.	N-FIXATION - SYMBIOTIC	A	0	0	0	1	B	0	0	1	1	B	0	0	1	1
931_0614.	PEST MGT - ROOTKNOT NEMATODE	B	35	0	3	0		0	0	0	0		0	0	0	0
931-0621.	SPRING AND WINTER WHEAT	A	0	0	2	0	A	0	0	2	0		0	0	0	0
931_1310.	CRSP - PROGRAM BEANS AND COWPEAS	A	10	1	6	2	B	25	1	6	2	A	0	1	6	2
931_1328.	CRSP-PROG: SMALL RUMINANTS	A	220	3	10	3	A	200	3	11	3	A	190	5	9	5
936_4054.	INTERNATIONAL BENCHMARK SITES	B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
936_4055.	TISSUE CULTURES FOR FOOD PROD.		0	0	0	0		0	0	0	0	B	2	0	1	0
COUNTRY TOTAL:			281	4	27	7		246	4	26	8		222	6	22	11

COUNTRY: CHILE

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
	ST/AGR															
931-0621.	SPRING AND WINTER WHEAT	A	0	0	2	0	A	0	0	2	0	A	0	0	2	0
931-1229.	SOILS MANAGEMENT SUPPORT SERVICES		0	0	0	0	B	10	0	2	0	B	90	0	0	25

A _ ACTIVE B _ PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

LATIN AMERICA — ST/AGR

	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
COUNTRY TOTAL:		0	0	2	0		10	0	4	0		90	0	2	25

COUNTRY: COLOMBIA

PROJECT TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR															
TROPICAL SOILS BNF - HAWAII 931-0129.		0	0	0	0		0	0	0	0		0	0	0	0
AGRO-ECON RESEARCH ON TROPICAL SOILS 931-0525.		0	0	0	0		0	0	0	0		0	0	0	0
MINERAL STUDIES WITH RUMINANT ANIMALS 931-0600.	A	4	0	2	2	A	0	0	1	2		0	0	0	0
N-FIXATION - SYMBIOTIC 931-0613.		0	0	0	0	B	0	0	1	1	B	0	0	1	1
COUNTRY TOTAL:		4	0	2	2		0	0	2	3		0	0	1	1

COUNTRY: COSTA RICA

PROJECT TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR															
IMPROVED FEED NUTRITION INFORMATION 931-0050.	A	3	0	1	8		0	0	0	0		0	0	0	0
WEED CONTROL UTILIZATION 931-0206.	A	150	2	5	40	A	150	2	4	45		0	0	0	0
WEED CONTROL SYSTEMS IN LDCS 931-0463.		0	0	0	0		0	0	0	0		0	0	0	0
MINERAL STUDIES WITH RUMINANT ANIMALS 931-0600.	A	4	0	2	1	A	4	0	1	1		0	0	0	0
N-FIXATION - SYMBIOTIC 931-0613.	A	0	0	0	1	B	0	0	2	1	B	0	0	2	1
FARM LVL POSTHARVEST GRAIN STORAGE LOSS 931-1322.	B	25	0	3	0	B	100	2	5	25		0	0	0	0
POSTHARVEST RODENT AND BIRD CONTROL 936-4120.		0	0	0	0	B	40	0	4	0		0	0	0	0
COUNTRY TOTAL:		182	2	11	50		294	4	16	72		0	0	2	1

A - ACTIVE   B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

LATIN AMERICA -ST/AGR

COUNTRY: DOMINICAN REPUBLIC

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
	CONTROL OF VERTEBRATE PESTS															
931-0473.		A	0	0	1	1	A	0	0	1	1		0	0	0	0
	MINERAL STUDIES WITH RUMINANT ANIMALS															
931-0600.		A	4	0	1	1	A	3	0	1	1		0	0	0	0
	N-FIXATION - SYMBIOTIC															
931-0613.			0	0	0	0	B	0	0	1	1	B	0	0	1	0
	SYNTHESIS OF WATER MANAGEMENT															
931-1007.		A	20	0	2	0	B	20	0	1	0		0	0	0	0
	SOILS MANAGEMENT SUPPORT SERVICES															
931-1229.			0	0	0	0	B	10	0	2	0	B	10	0	2	2
	CRSP - PROGRAM BEANS AND COWPEAS															
931-1310.		A	0	0	6	2	A	25	0	6	2	A	0	0	6	2
	CRSP - PROG: SOIL MANAGEMENT															
931-1311.		B	125	2	5	10	B	250	3	8	10		0	0	0	0
COUNTRY TOTAL:			149	2	15	14		308	3	20	15		10	0	9	4

COUNTRY: ECUADOR

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
	MINERAL STUDIES WITH RUMINANT ANIMALS															
931-0600.		A	10	1	1	2	A	1	0	1	1		0	0	0	0
	N-FIXATION - SYMBIOTIC															
931-0613.			0	0	0	0	B	0	0	1	1	B	0	0	1	0
	SPRING AND WINTER WHEAT															
931-0621.		A	0	0	1	0	A	0	0	1	0	A	0	0	1	0
	SYNTHESIS OF WATER MANAGEMENT															
931-1007.		A	0	0	5	0	A	190	0	3	5		0	0	0	0
	CRSP - PROGRAM BEANS AND COWPEAS															
931-1310.		A	0	0	6	7	B	25	0	6	7	A	0	0	6	4
	DRYLAND AGRICULTURE SUPPORT SERVICE															
936-4021.		A	0	4	1	0		0	0	0	0		0	0	0	0
	INTERNATIONAL BENCHMARK SITES															
936-4054.		B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
COUNTRY TOTAL:			15	5	15	9		226	0	14	14		20	0	11	6

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

LATIN AMERICA _ST/AGR

COUNTRY: EL SALVADOR

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
	ST/AGR															
PROGRESS INDICATORS - EL SALVADOR																
931_0236.05		A	200	4	1	0	A	0	4	1	0		0	0	0	0
N-FIXATION LIMITING FACTORS																
931-0610.		B	1	0	1	0		0	0	0	0		0	0	0	0
COUNTRY TOTAL:			201	4	2	0		0	4	1	0		0	0	0	0

COUNTRY: GUATEMALA

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
	ST/AGR															
MINERAL STUDIES WITH RUMINANT ANIMALS																
931-0600.		A	1	0	1	0	A	1	0	1	1		0	0	0	0
N-FIXATION - SYMBIOTIC																
931_0613.C1			0	0	0	0	B	0	0	1	1	B	0	0	1	0
CRSP - PROGRAM SORGHUM/MILLET																
931_1254.		B	0	0	4	0		0	0	0	0		0	0	0	0
CRSP - PROGRAM BEANS AND COWPEAS																
931_1310.		A	0	0	6	2	A	25	0	6	2	A	0	0	6	3
COUNTRY TOTAL:			1	0	11	2		26	0	8	4		0	0	7	3

COUNTRY: HAITI

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
	ST/AGR															
CONTROL OF VERTEBRATE PESTS																
931_0473.		A	0	1	1	1	A	0	1	1	1		0	0	0	0
N-FIXATION - SYMBIOTIC																
931_0613.C1			0	0	0	0	B	0	0	1	1	B	0	0	1	1
SYNTHESIS OF WATER MANAGEMENT																
931_1007.		A	10	0	1	0	B	30	0	2	0		0	0	0	0

A - ACTIVE B - PENDING MISSION APPROVAL

LATIN AMERICA -ST/AGR

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
CRSP - PROGRAM SORGHUM/MILLET																
931-1254.		A	0	0	4	0	A	15	0	6	1	A	15	0	6	0
COUNTRY TOTAL:			10	1	6	1		45	1	10	3		15	0	7	1

COUNTRY: HONDURAS

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
N-FIXATION LIMITING FACTORS																
931-0610.		A	15	0	2	1	A	14	0	2	1	A	14	0	2	1
N-FIXATION - SYMBIOTIC																
931-0613.			0	0	0	0	B	0	0	1	1	B	0	0	1	1
CRSP - PROGRAM SORGHUM/MILLET																
931-1254.		A	80	1	4	0	A	80	1	6	1	A	80	1	6	1
CRSP - PROGRAM BEANS AND COWPEAS																
931-1310.		A	0	0	6	2	B	25	0	6	2	A	0	0	6	2
CRSP POND DYNAMICS																
936-4023.		A	75	1	3	2	A	75	1	3	2	A	70	1	3	3
COUNTRY TOTAL:			170	2	15	5		194	2	18	7		164	2	18	8

COUNTRY: MEXICO

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
TROPICAL SOILS BNF - CORNELL																
931-0127.		A	0	0	0	1		0	0	0	0		0	0	0	0
MINERAL STUDIES WITH RUMINANT ANIMALS																
931-0600.		B	0	0	2	1	A	0	0	1	1		0	0	0	0
N-FIXATION LIMITING FACTORS																
931-0610.		A	6	0	2	0	A	18	0	4	1	B	18	0	4	1
N-FIXATION - SYMBIOTIC																
931-0613.		A	0	0	0	1	B	0	0	2	1	B	0	0	1	1
SPRING AND WINTER WHEAT																
931-0621.		A	0	0	4	0	A	0	0	2	0	A	0	0	2	0
CRSP - PROGRAM BEANS AND COWPEAS																
931-1310.			0	0	0	0		0	0	0	0	A	0	0	4	2
TISSUE CULTURES FOR FOOD PROD.																
936-4055.			0	0	0	0		0	0	0	0	B	1	0	1	0
COUNTRY TOTAL:			6	0	8	3		18	0	9	3		19	0	12	4

A - ACTIVE B - PENDING MISSION APPROVAL

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LATIN AMERICA -ST/AGR

COUNTRY: NICARAGUA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
N_FIXATION _ SYMBIOTIC																
931-0613.			0	0	0	0	B	0	0	0	1	B	0	0	1	1
COUNTRY TOTAL:			0	0	0	0		0	0	0	1		0	0	1	1

COUNTRY: PANAMA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
MINERAL STUDIES WITH RUMINANT ANIMALS																
931-0600.		A	1	0	1	0	B	0	0	0	1		0	0	0	0
N-FIXATION LIMITING FACTORS																
931-0610.		A	9	0	2	1	A	9	0	2	1	B	9	0	2	1
N-FIXATION _ SYMBIOTIC																
931-0613.			0	0	0	0	B	0	0	1	1	B	0	0	1	1
PEST MGT - ROOTKNOT NEMATODE																
931-0614.		B	35	0	3	0		0	0	0	0		0	0	0	0
SOILS MANAGEMENT SUPPORT SERVICES																
931-1229.		A	5	0	1	0	A	5	0	1	0	A	10	0	1	0
CRSP POND DYNAMICS																
936-4023.		A	85	1	3	2	A	85	1	3	2	A	80	1	3	3
CRSP: STOCK ASSESSMENT FISHERIES																
936-4026.		B	100	0	4	0		0	0	0	0	A	150	1	4	2
COUNTRY TOTAL:			235	1	14	3		99	1	7	5		249	2	11	7

COUNTRY: PARAGUAY

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
MINERAL STUDIES WITH RUMINANT ANIMALS																
931-0600.		A	3	0	1	1	A	4	0	1	1		0	0	0	0

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LATIN AMERICA _ST/AGR

TISSUE CULTURES FOR FOOD PROD. 936-4055.	0	0	0	0	0	0	0	0	B	2	0	1	0
COUNTRY TOTAL:	3	0	1	1	4	0	1	1		2	0	1	0

COUNTRY: PERU

PROJECT TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR															
TROPICAL SOILS BNF - NCSU 931-0130.	A	1	0	0	0	B	0	0	4	0		0	0	0	0
AGRO-ECON RESEARCH ON TROPICAL SOILS 931-0525.		0	0	0	0		0	0	0	0		0	0	0	0
MINERAL STUDIES WITH RUMINANT ANIMALS 931-0600.	A	4	0	1	1	A	5	0	1	2		0	0	0	0
N-FIXATION - SYMBIOTIC 931-0613.	B	0	0	2	0	B	0	0	2	1	B	0	0	1	1
PEST MGT _ ROOTKNOT NEMATODE 931-0614.	B	40	0	3	0		0	0	0	0		0	0	0	0
SPRING AND WINTER WHEAT 931-0621.	A	0	0	2	0	A	0	0	2	0	A	0	0	2	0
SOILS MANAGEMENT SUPPORT SERVICES 931-1229.	A	15	0	3	0	A	20	0	4	0	A	25	0	5	0
CRSP - PROG: SOIL MANAGEMENT 931-1311.	B	250	3	8	8	B	250	3	8	8		0	0	0	0
CRSP_PROG: SMALL RUMINANTS 931-1328.	A	290	5	16	22	A	290	5	15	2	A	250	6	13	6
INTEGRATED CROP PROTECTION RESEARCH 936-4049.	B	0	0	0	0	B	10	0	1	2		0	0	0	0
INTERNATIONAL BENCHMARK SITES 936-4054.	B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
TISSUE CULTURES FOR FOOD PROD. 936-4055.		0	0	0	0		0	0	0	0	B	2	0	1	0
COUNTRY TOTAL:		605	8	36	31		585	8	39	15		297	6	25	9

COUNTRY: URUGUAY

PROJECT TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR															
MINERAL STUDIES WITH RUMINANT ANIMALS 931_0600.	A	1	0	1	0	A	2	0	1	1		0	0	0	0

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LATIN AMERICA

	FY 1982				FY 1983				FY 1984			
	-ST/AGR											
COUNTRY TOTAL:	1	0	1	0	2	0	1	1	0	0	0	0

COUNTRY: VENEZUELA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
	ST/AGR															
931-0127.	TROPICAL SOILS BNF _ CORNELL	A	0	0	0	1		0	0	0	0		0	0	0	0
931-0600.	MINERAL STUDIES WITH RUMINANT ANIMALS	A	2	0	1	1	A	2	0	1	1		0	0	0	0
931-0610.	N_FIXATION LIMITING FACTORS	A	11	0	2	0	A	12	0	2	1	A	12	0	2	1
936-4054.	INTERNATIONAL BENCHMARK SITES	B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
COUNTRY TOTAL:			18	0	4	2		24	0	5	2		32	0	5	3

COUNTRY: JAMAICA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
	ST/AGR															
936-4023.	CRSP POND DYNAMICS		0	0	0	0	A	70	1	4	2	A	65	1	4	3
936-4048.	CRSP: PROGRAM PEANUTS	B	50	0	6	2	A	50	0	6	2	A	50	0	6	1
COUNTRY TOTAL:			50	0	6	2		120	1	10	4		115	1	10	4

COUNTRY: TRINIDAD AND TOBAGO

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
	ST/AGR															
931-0127.	TROPICAL SOILS BNF - CORNELL	A	8	1	2	0		0	0	0	0		0	0	0	0
931-0610.	N_FIXATION LIMITING FACTORS	B	20	1	3	1	B	24	1	3	1	A	24	1	3	1

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COUNTRY ACTIVITY REPORT
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LATIN AMERICA					_ST/AGR									
N-FIXATION - SYMBIOTIC														
931_0613.	0	0	0	0	B	0	0	1	0	B	0	0	1	0
COUNTRY TOTAL:	28	2	5	1		24	1	4	1		24	1	4	1

COUNTRY: ROCAP

	FY 1982					FY 1983					FY 1984				
PROJECT TITLE	STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR															
SOILS MANAGEMENT SUPPORT SERVICES															
931-1229.		0	0	0	0	A	5	0	1	0	A	5	0	1	0
COUNTRY TOTAL:		0	0	0	0		5	0	1	0		5	0	1	0

COUNTRY: LAC REGIONAL

	FY 1982					FY 1983					FY 1984				
PROJECT TITLE	STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR															
SMALL SCALE IRRIGATION SYSTEMS															
936-4121.		0	0	0	0		0	0	0	0	B	70	0	4	0
COUNTRY TOTAL:		0	0	0	0		0	0	0	0		70	0	4	0
TOTAL FOR REGION:		1963	31	187	133		2233	29	201	160		1334	18	154	89

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

AFRICA -ST/AGR

COUNTRY: ZAMBIA

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
WORLD RHIZOBIUM COLLECTION CENTER																
931_0095.			0	0	0	0	B	0	0	1	1	B	0	0	0	1
N-FIXATION - SYMBIOTIC																
931-0613.C1		B	0	0	1	0	B	1	0	2	2	B	2	0	2	2
COUNTRY TOTAL:			0	0	1	0		1	0	3	3		2	0	2	3

COUNTRY: MALAWI

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
MINERAL STUDIES WITH RUMINANT ANIMALS																
931-0600.		A	1	0	1	2	A	2	0	1	3		0	0	0	0
N_FIXATION _ SYMBIOTIC																
931-0613.			0	0	0	0	B	0	0	1	1	B	0	0	1	1
CRSP - PROGRAM BEANS AND COWPEAS																
931_1310.		A	0	0	6	2	B	25	0	6	2	A	0	0	6	2
COUNTRY TOTAL:			1	0	7	4		27	0	8	6		0	0	7	3

COUNTRY: ZIMBABWE

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
N_FIXATION _ SYMBIOTIC																
931-0613.C1			0	0	0	0	B	0	0	1	0	B	0	0	1	1
COUNTRY TOTAL:			0	0	0	0		0	0	1	0		0	0	1	1

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

AFRICA -ST/AGR

COUNTRY: KENYA

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
931-0130.	TROPICAL SOILS BNF - NCSU	A	1	0	0	1		0	0	0	0		0	0	0	0
931-0473.	CONTROL OF VERTEBRATE PESTS	B	10	0	1	0	B	10	0	1	1		0	0	0	0
931-0610.	N_FIXATION LIMITING FACTORS	B	4	0	2	1	B	5	0	2	1	A	5	0	2	1
931-0613.	N_FIXATION - SYMBIOTIC	B	2	0	1	0	B	0	0	2	1	B	0	0	2	0
931_1038.	PHYSIOLOGY AND ECOLOGY OF TICKS	O	10000	200	200	0		0	0	0	0		0	0	0	0
931_1310.	CRSP - PROGRAM BEANS AND COWPEAS	A	0	0	6	2	B	50	0	6	2	A	0	0	6	2
931_1322.	FARM LVL POSTHARVEST GRAIN STORAGE LOSS	B	30	0	4	25	B	100	2	5	25		0	0	0	0
931-1328.	CRSP-PROG: SMALL RUMINANTS	A	230	4	12	3	A	280	4	12	3	A	240	5	11	5
936-4054.	INTERNATIONAL BENCHMARK SITES	B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
936-4083.	TICK RESISTANCE IN RUMINANTS		0	0	0	0	B	250	4	1	0	B	300	4	2	1
936-4120.	POSTHARVEST RODENT AND BIRD CONTROL		0	0	0	0	B	50	0	4	25		0	0	0	0
COUNTRY TOTAL:			10282	204	227	32		755	10	35	58		565	9	26	11

COUNTRY: NIGERIA

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
931_0050.	IMPROVED FEED NUTRITION INFORMATION	A	2	0	1	2		0	0	0	0		0	0	0	0
931_0127.	TROPICAL SOILS BNF - CORNELL	A	0	0	0	1		0	0	0	0		0	0	0	0
931-0610.	N-FIXATION LIMITING FACTORS	A	6	0	3	1	A	6	0	3	0		0	0	0	0
931-0613.C1	N-FIXATION - SYMBIOTIC		0	0	0	0	B	0	0	1	1	B	0	0	1	1
931-0614.	PEST MGT - ROOTKNOT NEMATODE	B	50	0	3	0		0	0	0	0		0	0	0	0

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
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PROJECT	TITLE	STA TUS	FY 1982 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	FY 1983 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	FY 1984 AMT ($000)	STAF	#OF TDYS	#OF PTP
AFRICA						-ST/AGR										
CRSP - PROGRAM BEANS AND COWPEAS																
931-1310.		A	0	0	6	2	B	25	0	6	2	A	0	0	6	2
CRSP: PROGRAM PEANUTS																
936-4048.		B	50	0	6	1	A	50	0	4	0	A	50	0	6	0
COUNTRY TOTAL:			108	0	19	7		81	0	14	3		50	0	13	3
COUNTRY: TANZANIA																
PROJECT	TITLE	STA TUS	FY 1982 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	FY 1983 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	FY 1984 AMT ($000)	STAF	#OF TDYS	#OF PTP
	ST/AGR															
CONTROL OF VERTEBRATE PESTS																
931-0473.		B	25	0	1	1	B	25	0	1	1		0	0	0	0
N_FIXATION _ SYMBIOTIC																
931-0613.C1			0	0	0	0	B	0	0	1	1	B	0	0	1	1
CRSP - PROGRAM SORGHUM/MILLET																
931_1254.		A	10	0	2	1	A	10	0	2	1	A	10	0	2	1
CRSP - PROGRAM BEANS AND COWPEAS																
931-1310.		A	0	0	6	2	B	40	0	6	2	A	0	0	6	2
INTERNATIONAL BENCHMARK SITES																
936_4054.		B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
COUNTRY TOTAL:			40	0	10	4		85	0	12	5		30	0	12	6
COUNTRY: CAMEROON																
PROJECT	TITLE	STA TUS	FY 1982 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	FY 1983 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA TUS	FY 1984 AMT ($000)	STAF	#OF TDYS	#OF PTP
	ST/AGR															
SOIL FAMILIES _ HAWAII																
931-0582.		A	150	1	8	2	A	75	1	4	0	A	5	0	2	0
SOILS MANAGEMENT SUPPORT SERVICES																
931-1229.			0	0	0	0	A	15	0	3	0	A	5	0	1	0
CRSP _ PROGRAM BEANS AND COWPEAS																
931-1310.		A	0	1	9	1	A	40	1	6	1	A	0	1	6	2
CRSP: PROGRAM PEANUTS																
936-4048.		B	50	0	6	1	A	75	1	6	1	A	65	1	8	1
INTEGRATED CROP PROTECTION RESEARCH																
936-4049.		B	0	0	0	0	B	10	0	1	2		0	0	0	0
COUNTRY TOTAL:			200	2	23	4		215	3	20	4		95	2	17	3

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

AFRICA -ST/AGR

COUNTRY: BOTSWANA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
931-0600.	MINERAL STUDIES WITH RUMINANT ANIMALS	B	1	0	1	0	B	0	0	1	0		0	0	0	0
931-1310.	CRSP - PROGRAM BEANS AND COWPEAS	A	0	1	0	0		0	0	0	0	A	0	1	6	2
COUNTRY TOTAL:			1	1	1	0		0	0	1	0		0	1	6	2

COUNTRY: SIERRA LEONE

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
936-4023.	CRSP POND DYNAMICS	A	95	1	3	2	A	95	1	3	2	A	90	1	4	3
COUNTRY TOTAL:			95	1	3	2		95	1	3	2		90	1	4	3

COUNTRY: ALGERIA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
931-0621.	SPRING AND WINTER WHEAT	A	0	0	2	0	A	10	0	2	1	A	0	0	2	1
931-1318.	CONTROL OF BARLEY DISEASES FOR LDCS	A	1	0	2	1	A	1	0	2	1	A	1	0	2	1
COUNTRY TOTAL:			1	0	4	1		11	0	4	2		1	0	4	2

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

AFRICA -ST/AGR

COUNTRY: GHANA

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
N-FIXATION - SYMBIOTIC																
931-0613.C1			0	0	0	0	B	0	0	1	1	B	0	0	1	0
COUNTRY TOTAL:			0	0	0	0		0	0	1	1		0	0	1	0

COUNTRY: SOMALIA

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
CONTROL OF VERTEBRATE PESTS																
931-0473.		B	15	0	1	0	B	15	0	1	1		0	0	0	0
DRYLAND AGRICULTURE SUPPORT SERVICE																
936-4021.			0	0	0	0	A	0	20	2	0		0	0	0	0
COUNTRY TOTAL:			15	0	1	0		15	20	3	1		0	0	0	0

COUNTRY: SUDAN

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
MINERAL STUDIES WITH RUMINANT ANIMALS																
931-0600.		B	1	0	1	0		0	0	0	0		0	0	0	0
N-FIXATION LIMITING FACTORS																
931-0610.		A	8	0	2	1	A	0	0	1	0	B	6	0	2	1
N-FIXATION - SYMBIOTIC																
931-0613.C1			0	0	0	0	B B	0	0	2	2	B	0	0	1	1
SYNTHESIS OF WATER MANAGEMENT																
931-1007.			0	0	0	0	B	60	0	1	4		0	0	0	0
SOILS MANAGEMENT SUPPORT SERVICES																
931-1229.		A	15	0	3	0	A	120	0	4	30	A	15	0	3	0
CRSP - PROGRAM SORGHUM/MILLET																
931-1254.		A	0	2	10	0	A	180	3	8	2	A	250	4	10	2

A - ACTIVE B - PENDING MISSION APPROVAL

AFRICA _ST/AGR

PROJECT TITLE	STA	FY 1982 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA	FY 1983 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA	FY 1984 AMT ($000)	STAF	#OF TDYS	#OF PTP
CRSP: PROGRAM PEANUTS															
936-4048.	B	50	0	6	2	A	50	0	6	2	A	65	0	8	2
INTEGRATED CROP PROTECTION RESEARCH															
936-4049.	B	0	0	0	0	B	10	0	1	2		0	0	0	0
INTERNATIONAL BENCHMARK SITES															
936-4054.	B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
COUNTRY TOTAL:		79	2	23	3		430	3	25	42		376	4	27	8

COUNTRY: ZAIRE

PROJECT TITLE	STA	FY 1982 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA	FY 1983 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA	FY 1984 AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR															
INTERNATIONAL BENCHMARK SITES															
936-4054.	B	5	0	1	0	B	10	0	2	0	B	20	0	3	2
COUNTRY TOTAL:		5	0	1	0		10	0	2	0		20	0	3	2

COUNTRY: LIBYA

PROJECT TITLE	STA	FY 1982 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA	FY 1983 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA	FY 1984 AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR															
TISSUE CULTURES FOR FOOD PROD.															
936-4055.		0	0	0	0		0	0	0	0	B	2	0	1	0
COUNTRY TOTAL:		0	0	0	0		0	0	0	0		2	0	1	0

COUNTRY: MAURITANIA

PROJECT TITLE	STA	FY 1982 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA	FY 1983 AMT ($000)	STAF	#OF TDYS	#OF PTP	STA	FY 1984 AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR															
SYNTHESIS OF WATER MANAGEMENT															
931-1007.		0	0	0	0	B	2	0	0	200		0	0	0	0
COUNTRY TOTAL:		0	0	0	0		2	0	0	200		0	0	0	0

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

AFRICA -ST/AGR

COUNTRY: NIGER

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
N-FIXATION LIMITING FACTORS																
931-0610.			0	0	0	0	B	0	0	0	1	B	5	0	2	1
CRSP - PROG: SOIL MANAGEMENT																
931-1311.		B	200	2	3	6	B	250	3	6	10		0	0	0	0
CRSP: PROGRAM PEANUTS																
936-4048.		B	50	0	6	2	A	50	0	6	2	A	50	0	4	0
COUNTRY TOTAL:			250	2	9	8		300	3	12	13		55	0	6	1

COUNTRY: SENEGAL

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
MINERAL STUDIES WITH RUMINANT ANIMALS																
931-0600.		A	1	0	1	0	A	1	0	1	1		0	0	0	0
N-FIXATION - SYMBIOTIC																
931-0613.C1			0	0	0	0	B	1	0	2	1	B	2	0	2	1
CRSP - PROGRAM BEANS AND COWPEAS																
931-1310.		A	0	0	6	2	B	50	0	6	2	A	0	0	6	2
DRYLAND AGRICULTURE SUPPORT SERVICE																
936-4021.		A	0	0	1	0		0	0	0	0		0	0	0	0
CRSP: STOCK ASSESSMENT FISHERIES																
936-4026.		B	100	0	4	0		0	0	0	0	A	150	1	4	2
CRSP: PROGRAM PEANUTS																
936-4048.		B	50	0	6	2	A	50	0	6	2	A	75	1	8	1
COUNTRY TOTAL:			151	0	18	4		102	0	15	6		227	2	20	6

COUNTRY: MALI

PROJECT	TITLE	FY 1982 STATUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STATUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STATUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																

A - ACTIVE B - PENDING MISSION APPROVAL

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF	FY 1984 #OF TDYS	FY 1984 #OF PTP
	ST/AGR															
AFRICA																
WORLD RHIZOBIUM COLLECTION CENTER																
931-0095.		A	0	0	0	1		0	0	0	0		0	0	0	0
N-FIXATION - SYMBIOTIC																
931-0613.			0	0	0	0	B	0	0	2	2	B	0	0	1	1
							B									
CRSP - PROGRAM SORGHUM/MILLET																
931-1254.		A	25	0	5	1	A	25	0	6	1	A	25	0	8	1
DRYLAND AGRICULTURE SUPPORT SERVICE																
936-4021.			0	0	0	0	A	0	20	2	0		0	0	0	0
COUNTRY TOTAL:			25	0	5	2		25	20	10	3		25	0	9	2
COUNTRY: RWANDA																
	ST/AGR															
SOILS MANAGEMENT SUPPORT SERVICES																
931-1229.		A	110	0	4	25	A	10	0	2	0	A	10	0	2	0
CRSP POND DYNAMICS																
936-4023.		A	95	1	3	2	A	95	1	3	2	A	90	1	4	3
COUNTRY TOTAL:			205	1	7	27		105	1	5	2		100	1	6	3
COUNTRY: AFRICA REGIONAL																
	ST/AGR															
SMALL SCALE IRRIGATION SYSTEMS																
936-4121.			0	0	0	0	B	80	0	3	0	B	180	1	3	0
COUNTRY TOTAL:			0	0	0	0		80	0	3	0		180	1	3	0
TOTAL FOR REGION:			11458	213	359	98		2339	61	177	351		1818	21	168	59

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

ST/AGR

COUNTRY: SO PACIFIC REGIONAL

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
936-4055.	TISSUE CULTURES FOR FOOD PROD.		0	0	0	0		0	0	0	0	B	1	0	1	0
COUNTRY TOTAL:			0	0	0	0		0	0	0	0		1	0	1	0

COUNTRY: FIJI

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
931-1229.	SOILS MANAGEMENT SUPPORT SERVICES	A	20	0	2	10	A	5	0	1	0	A	5	0	1	0
COUNTRY TOTAL:			20	0	2	10		5	0	1	0		5	0	1	0

COUNTRY: PAPUA NEW GUINEA

PROJECT	TITLE	FY 1982 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1983 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP	FY 1984 STA TUS	AMT ($000)	STAF	#OF TDYS	#OF PTP
ST/AGR																
931-1229.	SOILS MANAGEMENT SUPPORT SERVICES	A	10	0	2	0	A	25	0	3	10	A	5	0	1	0
COUNTRY TOTAL:			10	0	2	0		25	0	3	10		5	0	1	0
TOTAL FOR REGION:			30	0	4	10		30	0	4	10		11	0	3	0

A - ACTIVE B - PENDING MISSION APPROVAL

COUNTRY ACTIVITY REPORT
BY GEOGRAPHIC AREA - FY 82 THRU 84

PROJECT SERVICES AT MISSION OR BUREAU REQUEST _ST/AGR

COUNTRY: SERVICES AT MISSION / BUREAU REQUEST

PROJECT	TITLE	FY 1982 STA TUS	FY 1982 AMT ($000)	FY 1982 STAF TDYS	FY 1982 #OF TDYS	FY 1982 #OF PTP	FY 1983 STA TUS	FY 1983 AMT ($000)	FY 1983 STAF TDYS	FY 1983 #OF TDYS	FY 1983 #OF PTP	FY 1984 STA TUS	FY 1984 AMT ($000)	FY 1984 STAF TDYS	FY 1984 #OF TDYS	FY 1984 #OF PTP
ST/AGR																
ECONOMIC ANALYSIS																
931-0060.																
WORLD RHIZOBIUM COLLECTION CENTER																
931-0095.																
SEED PROGRAM AND INDUSTRY DEVELOPMENT																
931-0203.																
IMPROVEMENT OF POSTHARVEST GRAIN SYSTEMS																
931-0786.																
PLANT AND SEED MATERIALS																
931-0829.																
FERTILIZER TECHNICAL ASSISTANCE (TVA)																
931-0832.																
PEST MGT - RELATED ENV. PROTECTION																
931-0930.																
SYNTHESIS OF WATER MANAGEMENT																
931-1007.																
LIVESTOCK PRODUCTION CAPABILITY																
931-1149.																
SOILS MANAGEMENT SUPPORT SERVICES																
931-1229.																
FARM LVL POSTHARVEST GRAIN STORAGE LOSS																
931-1322.																
STORAGE/PROCESSING OF FRUITS/VEGETABLES																
931-1323.																
DRYLAND AGRICULTURE SUPPORT SERVICE																
936-4021.																
PEST MANAGEMENT CAPABILITY (RSSA)																
936-4071.																
AGRICULTURAL POLICY ANALYSIS																
936-4084.01																
FARMING SYSTEMS SUPPORT																
936-4099.01																
AGR DATA MGT SYSTEM																
936-4116.																
ECONOMICS OF FOOD SECURITY																
936-4117.																
COUNTRY TOTAL:																
TOTAL FOR REGION:																

A - ACTIVE B - PENDING MISSION APPROVAL