

Title XII in Retrospect and Prospect¹

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As you know, U.S. agricultural colleges and universities have played a vital role in foreign assistance efforts for several decades. During that time they have demonstrated their effectiveness in building human and institutional resources for agriculture in less-developed countries. Their participation has had a pronounced positive effect on the Agency for International Development's (AID) efforts to eliminate hunger and malnutrition in the Third World.

Unfortunately, the enthusiasm for participation by U.S. universities in international-development activities seemed to wane somewhat in the late 1960s and early 1970s. Major internal--as well as external--factors accounted for this decline. Internally, universities tended to give low priority to international involvement. Overseas service went unrecognized in determining faculty appointment, promotion, and tenure policies. Furthermore, the mission of state-supported universities was not deemed to include international activities unless such activities could be clearly shown to favorably influence domestic agriculture. Several factors external to U.S. universities also limited their participation. Frequent changes in AID policies, programs, and leadership threatened the stability that effective university involvement requires. Uncertainties as to funding levels for foreign assistance also undermined long-term university participation. Likewise, universities were not asked to help in project design but were involved only through implementation. By the mid-1970s, these problems had caused a decline in the involvement of universities participating in international agriculture. Congress was aware that U.S. agricultural universities had been instrumental in the unprecedented growth of U.S. agriculture. Federal legislators also recognized that many of these institutions had demonstrated their ability and value in foreign-aid programs and that there existed within the agricultural academic community a cadre of internationally experienced faculty eager to be of assistance to less-developed countries.

CREATION OF TITLE XII

Consequently, in 1975 the U.S. Congress, in concert with AID and the university community, designed legislation to more effectively utilize the resources of U.S. universities. That legislation--Title XII, Famine Prevention and Freedom from Hunger--is one of the most significant amendments to the U.S. Foreign Assistance Act of 1961. It enables AID to formalize, strengthen, and expand relationships with the agricultural university community. The Title XII legislation mandated intensive utilization of the university potential to increase food production and improve distribution, storage, and marketing, not only to prevent hunger but to build the economic base for growth, particularly in the poorest countries. In addition, the legislation provided mechanisms to strengthen university capabilities and increase communication and collaboration between U.S. campus-based experts and Third-World agricultural personnel. To assist AID in the administration of Title XII, the legislation established the U.S. Board for International Food and Agricultural Development (BIFAD). The board participates in the formulation of policy and procedures for carrying out Title XII and helps plan, implement, monitor, and evaluate projects funded under the title.

Since 1975, AID and BIFAD have developed a partnership that clearly recognizes hunger and malnutrition as primary constraints to growth in the poorest developing countries. The focus is on endeavors central to international agricultural development--the integration of agricultural research, teaching, extension and other services to meet the needs of host-country small farmers and the populations they help to feed. To support this effort, already existing--as well as newly created--resources were put to work. In 1971, AID had helped establish the Consultative Group on International Agricultural Research (CGIAR). This organization coordinates funding and provides program guidance to the 13 International Agricultural Research Centers (IARC) that are organized under its aegis. Title XII authorizes program support for the centers, which perform the special role of bridging the gap between advanced technology and the needs of developing countries. The research role of the centers together with that of the U.S. agricultural universities, the U.S. Department of Agriculture and, to a lesser extent, other public and private institutions constitute a large scientific resource for research, teaching, and extension.

Title XII also authorized the provision of support for long-term collaborative university research. As a consequence, AID was able to establish the Collaborative Research Support Programs (CRSP). The basic thrust of these programs is to link the expertise and resources of U.S. and Third-World research institutions to increase food production and improve nutrition. AID requires that participating U.S. universities contribute at least 25% of program costs from nonfederal funds. They have, in fact, frequently contributed substantially more. In addition, the legislation authorized AID to strengthen the capabilities of participating U.S. institutions to implement Title XII activities. Through these increased capabilities, U.S. institutions can more effectively implement activities in the Third World. These activities include developing institutional and human resources,

conducting and supporting research, rendering technical assistance, and providing advisory services to host-country governments and the private sector. To systematize the entire Title XII process, BIFAD has identified colleges and universities that are appropriate emissaries and has developed a computerized Registry of Institutional Resources (RIR). Since the amendment was implemented in 1977, 141 projects have been initiated under Title XII. These efforts are taking place in countries in all regions of the developing world and include contracts and subcontracts with the U.S. Department of Agriculture and other nonacademic institutions.

RECENT INITIATIVES

As Title XII technological efforts expanded, new areas in need of development were brought to light. It became apparent that initiatives were required to more constructively address the constraints I've mentioned, along with mandated reductions in AID staff professionals and program funds. AID and BIFAD needed to make available mechanisms that would reinforce the institutional capabilities of colleges and universities and their desire to participate in Title XII endeavors. In response to these needs, AID and BIFAD designed various mechanisms that facilitate and increase the effectiveness of university involvement in this program. Let me briefly describe each of these initiatives.

* The Technical Support to Missions (TSM) format allows U.S. institutions to develop a long-term commitment to assist a mission in carrying out its technical staff functions. These functions include such activities as sector analysis, project evaluations, feasibility studies, and so on.

* The Joint Enterprise Mode (JEM) increases AID's access to the substantial resources of the small schools. The Title XII process through which most larger institutions compete for projects is inappropriate for small colleges and universities. These small schools, with limited but highly valued resources, cannot compete with larger institutions. This new approach allows these smaller entities to address proposals to that portion of a project that can benefit from their particular expertise. AID hopes to support this effort by helping appropriate institutions to create joint proposals. The first project using this approach is underway in Niger, and we expect the JEM to be used widely in the future.

* Memoranda of Understanding (MOU) define the technical and geographic areas in which AID will utilize particular university expertise. The MOUs also identify agreed-upon core groups of university staff professionals designated for long-term AID support. This approach allows universities to make sustainable commitments to experienced professionals who will participate in Title XII endeavors. An AID/BIFAD committee has established criteria for review and selection of universities to participate in this approach. A number of institutions have signed MOUs and negotiations are underway with others.

* The Joint Career Corps (JCC) was designed to bring the scientific expertise of selected senior faculty members into the agency by spending one-third of their careers with AID, usually on two-year appointments overseas. These appointments are alternated with four-year assignments back on campus, with occasional AID consultancies. This year, up to 25 high-level, policy- and program-influencing positions in AID field missions will be implemented through this approach. Several agreements have been signed and others are in process. This innovation has another aspect in which agency professional personnel are loaned to participating institutions for teaching or research, funded in part by the university. These generally will be one-year assignments and will afford AID professionals opportunities to re-establish their professional credentials while sharing their international perspective with staff professionals and students.

* A program has also been established to more fully involve Historically Black Colleges and Universities (HBCU) in Title XII programs. This innovation will provide assistance through the approaches already mentioned and through a small research-grant program to identify and encourage outstanding scientists and scholars from these institutions.

* The Collaborative Assistance Method of Contracting (CAMC) involves participating universities in project design. Such early involvement in the project enhances their ability to integrate the necessary mix of disciplines into the implementation plan, particularly the social sciences.

By increasing the professional stature and security of participation in foreign assistance endeavors, these initiatives should help to expand the institutional and staff resources available to Title XII.

THE CHALLENGE TO SOCIAL SCIENCE

Title XII projects involve inputs from all disciplines, including the social sciences. While technological innovations are developed through some AID projects, the ultimate area of concern is the socioeconomic needs of the populations we are striving to assist. Scientific and technological innovations will not be widely accepted if they are in conflict with existing social and cultural customs and beliefs. By not being committed to a particular biological field, social scientists have the ability to examine a system as a complete entity and often can see points of harmony and disharmony that are not apparent to physical scientists. It is the old story of the forest and the trees. In order to make the most productive use of available resources, AID has identified four priority activity areas—country policy reform, research and technology transfer, private sector involvement, and institutional and human development. Within the context of these priorities, successful program efforts must be compatible with sociocultural environments that are frequently not only country-specific, but locale- or even village-specific.

By way of example, a Peace-Corps volunteer who had spent several years in the Cassamance area of Senegal predicted that cashew trees being planted as part of a project would never reach maturity. Indeed, before the trees matured there was an "accidental" bush fire. If the local residents had been asked which trees they preferred to plant around their village, they never would have chosen cashews. In that community, it is believed that spirits dwell in mature cashew trees; and cashews are not part of the local diet. The Peace-Corps volunteer may not have known why, but he had noticed that cashew seedlings had very short lives in that village. Attention to the needs and concerns of that population could have prevented loss of time and resources. It is likely that the connection between cashew trees and spirits was indigenous only to that village and the trees might have been successfully grown in a nearby community.

To attain the broad and permanent success we envision for each of our priorities, the expertise and experience of social scientists must be harnessed. Insights concerning cultural and social differences in host countries and communities and the use of such knowledge can appreciably augment project effectiveness. As the physical and biological sciences become more sophisticated and less comprehensible to the nonscientist, collaboration between biological and social scientists becomes more valuable and necessary. Traditionally, most social-science research has been carried out in isolation from the physical and biological sciences. While collaboration between the social and natural sciences could always have enhanced assistance efforts, rapid advances in technology frequently make cooperation mandatory. Technological changes that can vastly improve the quality of life may be incompatible with traditional patterns. Innovations work only if they are used. Scientific collaboration can create an environment within which technology and traditions can be modified to allow for real and lasting change.

Constraints to Social Science Collaboration. Historically, a number of constraints exist to such collaboration. First, there is, on the part of technologies and social scientists alike, a lack of experience with such cooperative efforts. Hence, there is little previous knowledge from which suppositions can be drawn. In addition, there are traditional beliefs and myths about the incompatibility of physical and social scientists that must be put aside. To facilitate collaboration, social scientists who are chosen to work with international rural development projects must have or acquire in-depth knowledge concerning the technical focus of the effort; physical scientists must become familiar with the underlying methodology of social science. Second, the expertise of social scientists is frequently enlisted to ameliorate existing problems late in the technological project process. This pattern has caused them to be cast as undiplomatic critics. Quite to the contrary, when involved early, these disciplines are the potential source of developmental solutions that can expedite the programmatic process. Third, collaboration between these scientific disciplines has been a problem on campuses as well as in the field. Such cooperation has been rare and poorly documented. Hence, programs planned around such joint efforts frequently reinvent the wheel at great cost of precious time and scarce

financial resources. Social-science input is increasing, but in an ad hoc, intuitive fashion. These applications must be systematized and generalized so that social-scientific expertise can be integrated into all foreign assistance efforts.

Utilizing the Social Sciences. AID has the determination to encourage multidisciplinary collaboration. We expect that the innovations being built into the Title-XII program can successfully minimize the institutional constraints I have mentioned. Certainly, the resources required to implement the multidisciplinary approach in foreign assistance projects do exist within the participating institutions. To avoid future costly mistakes, project planning must include social-soundness analyses to determine the sociocultural feasibility of a proposed endeavor. This assessment requires that values, beliefs, social structure, and organization first be taken into account. Enthusiastic participation in any project only comes from those who believe they have something at stake and who, therefore, are committed to the project's success. As the cashew-tree story illustrates, it may be difficult for outside experts to identify questions that need to be asked without expert guidance. An in-depth knowledge of the existing social landscape can help planners to determine whether the project objectives are realistic.

SELECTED PROJECT EFFORTS

During the last few years, AID has planned and is implementing a number of projects that are successfully incorporating various disciplines. Emphasis is being placed on more effective interaction among geographically diverse endeavors that have common constraints or goals. This common-themes approach helps to eliminate duplication of effort. Common issues are addressed in one or a few locations; site-specific problems are dealt with as last-stage adaptations. The networking capabilities of Title-XII efforts--the CRSPs in particular--lend themselves well to such effective interaction. Let me briefly elaborate on four projects, all of which have social-science-related components. The first one deals with irrigation; the second with small ruminants. The last two projects focus on forestry.

Water Management Synthesis II. This Title-XII project, which significantly involves the social sciences, has the common theme of irrigation management. AID's Asia and Science and Technology Bureaus jointly manage the project at a number of sites in developing countries.² The 1980s may be remembered as the irrigation decade. As arable land becomes scarce in many parts of the tropics, efficient productivity becomes ever more crucial. Over 40% of all annual crops produced in the Third World are presently grown on irrigated fields, and the irrigated area has been growing by over 2% a year since 1960. This growth is likely to continue and accelerate as improved crops (such as rice and wheat) are increasingly tailored to irrigation conditions. Despite the evident need for and proliferation of irrigation schemes, efficient utilization of the water tends to be less than 50% and many irrigation systems operate at only 30 to 40% of

potential. Poor water control, over-irrigation, and inadequate drainage cause water-logging and salinity in the soil. These conditions severely reduce agricultural productivity. Given the rapidly growing populations of these countries, such soil degradation and the inherent crop yield reductions must be stopped.

Through earlier projects, AID has determined that much of the problem stems from poor management which, in turn, has been identified as the result of poor communication between host-country managers and technicians, on the one hand, and the rural farmers who are the end-users of the water. Attention, therefore, is shifting from building new irrigation systems to improving the performance of existing ones and developing a methodology for future efforts. To increase the technical efficiency, productivity, and economic performance of these systems, the Water Management Synthesis II project facilitates technical assistance, training, and special studies. The project is also developing a method for systematically collecting and disseminating lessons from past and current field experience in irrigation water management. In recent years, interdisciplinary studies utilizing the expertise of social scientists, engineers, and agriculturalists have begun to explore the highly complex nature of irrigation water management problems. This most recent effort employs a field-oriented approach. Studies are made of the relation of farm-level problems to constraints at other levels of the system. Emphasis is placed on improved communications between the engineers, administrators, and technicians who manage the reservoirs and larger waterways and the farmers who manage the smaller channels and are the end-users of the water. Linkages between these two groups frequently have been weak and the lack of communication has been very costly. Interdisciplinary teams of scientists are needed to involve the users of water in the project decision-making process. This should ensure that technological innovations more closely coincide with the farmers' needs. Because project failures have frequently been attributed to lack of understanding on the part of the farmers, the project also addresses appropriate bureaucratic reorientation. Working with both groups and bringing them together helps the officials and engineers to realize that the farmers can successfully manage irrigation at the local level if the system is realistically designed to meet their needs.

Small Ruminant CRSP. This program is creating a fertile garden of mutual esteem between biological and social scientists. The biological research on goats, sheep, and other small ruminants is being conducted in a variety of diverse sites in Peru, Kenya, Morocco, Indonesia, and Brazil. The biological scientists working in these projects conduct their research where land and laboratory equipment happen to be available for their use. Frequently, these are not the typical farm environments in the host countries. The social scientists, who spend much of their time among the rural farm populations, help to keep the biological scientists in touch with the prevailing social concerns. In addition to studying the indigenous population, the sociologists perform informal studies of the research system. As they gain insight into the focus of the research, they suggest areas of exploration that would benefit the populations being served. As occasions arise, they

accompany the biological scientists to the rural areas where the more typical farmers and pastoralists are observed. Frequently, both technical and social research priorities are reordered in terms of such observations.

A case in point was a goat disease--fluorosis--found in parts of Peru. For a brief time, biologists working in that country were attempting to find a cure for the disease. For the pastoralists, however, fluorosis was not a problem. The disease does not occur widely and is not contagious to animals or humans. The local solution was to butcher and eat goats that got the disease. Biological scientists, denied such information about the situation, might have pursued research on fluorosis. However, the sociologists who were familiar with the local solution shared that information and the biologists moved on to more necessary research.

Agroforestry Outreach Project. When Columbus discovered the New World, the Island of Hispanola (part of which is now Haiti) was a lush, tree-covered paradise. In 1950, more than 450 years later, 80% of the island was still covered by trees. By 1970, however, the tree cover had diminished to 8% and parts of Haiti were beginning to resemble deserts. The main cause of this forest degradation is a rapidly growing rural population with declining incomes and an increasing need for fuelwood and charcoal. In 1982, AID became the primary sponsor of a project carried out by the Pan American Development Foundation (PADF), CARE, and Operation Double Harvest, with the cooperation of Haitian voluntary organizations, schools, missions, and a group of peasants. This project is addressing the problem by helping Haitian farmers to recognize that trees are a harvestable, saleable crop that can be grown in conjunction with other agricultural products. The project emphasizes social-scientific approaches and carries out its efforts through nonprofit voluntary organizations that work with small local groups. The hard-working Haitian peasants are developing their own agroforestry system, integrating fast-growing trees with their other crops. This is the first time that such a large AID project has had anthropological management. The progress has been far beyond the most optimistic expectations. This success indicates that there is good potential for replication of social-scientific management in other kinds of projects.

Forestry Research and Development Project. This Title XII work is being planned to increase the production of forestry goods and services in less-developed countries. The social sciences will play an intrinsic role in the three project components--global research, collaborative research and development, and technical assistance. Regional networks of forestry research institutions will be established and maintained to address the common theme of fuelwood. Socioeconomic constraints to the success of such endeavors will be explored; the host countries will be aided in designing multidisciplinary research efforts.

SUMMARY AND CONCLUSION

Many other AID projects are incorporating the expertise of social scientists. The change is evident--so much so that an AID official recently remarked that the nuclear family in parts of Africa now consists of a husband with one to four wives, three cows, one goat, five chickens, and an anthropologist. Whether the project focuses on agriculture, health, population, energy, or a combination of these development issues, it is evident that the involvement of social scientists is a forward step that is gaining momentum. An important element of AID agricultural policy is the emphasis on small farmers who comprise the great majority of Third-World rural populations. Increasing the productivity of these people can make a real difference in both food availability and economic growth. The challenge is to design and implement programs that address the legitimate needs and desires of these people. Social scientists have the tools for assessing what will work best, for whom it will work, and why. Biological scientists have the ability to develop and adapt appropriate technologies. Working together, they can greatly enhance the success of these foreign-aid endeavors that ultimately benefit all of us.

NOTES

¹This is an edited version of a paper prepared for the opening address of the 1983 meeting of the Rural Sociological Society in Lexington (KY).

²The countries currently involved are India, Pakistan, Bangladesh, Sri Lanka, Thailand, and Indonesia in Asia; the Dominican Republic, Haiti, Peru, and Ecuador in Latin America, Mali and Niger in Africa; and Jordan in the Near East. In fiscal year 1984, the Philippines, Nepal, Burma, Kenya, Chad, Egypt, and Honduras will become participants in the project.