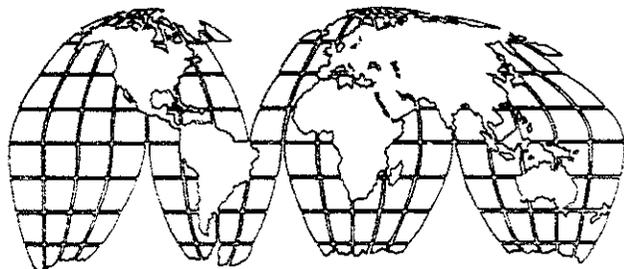


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AID's Experience in Agricultural Extension

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AID'S EXPERIENCE IN AGRICULTURAL EXTENSION

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SUMMARY

In his 1985 speech at Michigan State University and subsequent worldwide cable, AID Administrator M. Peter McPherson outlined a new approach to agricultural extension. While AID has modified its "initial emphasis on extension as a primary means of agricultural production," Administrator McPherson noted that more targeted extension efforts have a continuing role in agricultural development. He particularly emphasized the potential of innovative extension approaches--mobilizing the private sector, applying modern mass communications, and selectively strengthening public extension--to more effectively transfer improved agricultural technology to Third World farmers.

This paper assesses AID's historical experience in agricultural extension in relation to the experience of other donors, the development of the American extension system, and the larger extension literature. It also provides a descriptive analysis and selected case studies of recent AID projects with particular reference to the use of innovative extension approaches. The study found that

- o During the past ten years, most of AID's extension activities have involved relatively traditional attempts to strengthen existing extension systems or to create parallel extension organizations through training and technical assistance.
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- o Recent project papers indicate that a number of innovative extension approaches are being implemented, but documentary evidence on effectiveness and impact remains sparse. Extension recommendations drafted by the Agricultural Technology Working Group were based primarily on the experience of other donors and non-governmental organizations. Limited field studies of promising AID extension efforts could provide a useful basis for additional mission guidance.

- o Most of AID's extension activities appear to have been developed without clearly defined long-term extension goals or clear strategies relating extension to larger technology transfer and agricultural development issues.

- o AID's support, especially during the 1950's and 1960's, for decentralized extension services centered around agricultural universities may have been dismissed prematurely. Recent Impact Evaluations of Agricultural Higher Education suggest that AID's support often played a key role in developing agricultural universities that have the potential to provide important technology development and transfer services.

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- o The World Bank's Training and Visit (T&V) system has proven an effective approach to improving the delivery of extension services in some settings, but has yet to prove itself in Africa and Latin America. T&V's emphasis on centralized, national extension bureaucracies seems inconsistent with AID's own development philosophy and may be particularly ineffective in countries where local agro-ecological conditions are heterogeneous. The T&V approach also seems beyond the financial means of many host countries.

- o Few extension projects have focused on farmer organizations and farmer self-help as extension components, despite AID's experience with local participation and the historical involvement of farmers' groups in extension in the United States.

- o The Agricultural Technology Management Working Group and the INTERPAKS project both emphasize that extension is only one constraint to agricultural development and that the impact of extension depends on other elements in a larger agricultural technology transfer system. They conclude that extension activities should be implemented as part of a wider agricultural development strategy that takes these constraints into account.

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INTRODUCTION

Although agricultural development has remained a key component of AID's development assistance strategy for more than thirty years, AID's approach to agricultural extension has varied markedly. During the 1950's and early 1960's, AID and its predecessors mobilized thousands of extension professionals to establish and expand American-style extension institutions throughout the developing world. After peaking in the early 1960's, however, AID's support for national extension systems declined rapidly. By the early 1970's AID, for the most part, had abandoned its attempts to transfer American extension models directly to third world settings. Instead, AID began emphasizing the dissemination of specific research results, most often as part of geographically focused agricultural and rural development projects.

By the late 1970's, other donors--most notably the World Bank with its training and visit system--had taken the lead in promoting large scale extension system reform. However, AID continued to support a variety of more focused extension activities, initiating more than 1,085 projects with extension components between 1975 and 1984. Extension was the primary activity in at least 266 of these projects. Between 1980 and 1985 such extension projects received more than \$302 million in AID funding (an average of about \$50 million per year), representing nearly 7% of the Agency's Agriculture, Rural Development, and Nutrition support.

During the 1980's, AID's extension portfolio became more diverse and missions began experimenting with new extension approaches involving private firms, modern mass communications, and the selective strengthening of public extension institutions. The importance of these new extension initiatives was formally recognized by Administrator McPherson in a 1985 speech at Michigan State University and a subsequent worldwide cable to AID missions.

Despite all of this activity, many AID officers still perceive extension as "something we used to support, but no longer fund." This paper is intended both to dispell this notion and to suggest future extension strategies and priorities. The paper analyses AID's extension experience in relation to the activities of other donors, the experience of American extension, and the larger extension literature. It seeks, in particular, to assess AID's use of more innovative extension approaches that mobilize private enterprise, mass media, and public bureaucracies to transfer improved agricultural technologies more effectively throughout the developing world.

WHY AID "ABANDONED" EXTENSION

During the first two decades after the Second World War, AID and its predecessors played a prominent role in expanding extension systems throughout the developing world. Starting nearly from scratch, AID helped create national extension systems in nearly a dozen Latin and Central American countries. Throughout Asia, Africa, and Latin America, AID built new agricultural universities, provided training and technical assistance, and funded the the recurrent costs of national extension systems.

In the 1950's most experts believed that existing Western technology could increase agricultural productivity and profitability in developing countries. All that was needed, the experts thought, was to teach native farmers how to use these tools and techniques. AID's agricultural development strategy therefore emphasized the role of host country extension systems in transferring this supposedly available technology to farmers. AID's model, ostensibly at least, was the American land grant system. AID promoted the development of agricultural universities, trained large numbers of extension agents, and supported the expansion of national extension bureaucracies.

By the late 1960's, this agricultural development strategy was being increasingly questioned. Few farmers were adopting improved technology and the extension systems that AID had helped create were generally perceived as ineffective, inefficient, and irrelevant.

Despite AID's large investment, extension institutions in most of the developing world continued:

- o to be overly centralized and politicized;
- o to have limited contacts with farmers;
- o to have inadequate linkages with researchers, private industry, and other agricultural participants;
- o to have poorly trained, inexperienced, and overworked extension agents;
- o to encompass numerous non-extension responsibilities;
- o to rely on ineffective and outmoded methods; and
- o to have little technology of practical value to impart.

In part, these problems reflected the difficult conditions, limited resources, colonial legacies, inappropriate policies, and inadequate management of host governments. In part, they also reflected AID's own extension approach, which emphasized process over substance, communication over technology, and a predominant role for national extension bureaucracies. To a large extent, this was based on an oversimplified view of American extension that ignored the land grant system's participatory history, social and political evolution, and decentralized structure.

AGRICULTURAL EXTENSION IN THE UNITED STATES

According to conventional wisdom, AID's efforts to transfer the American extension system failed because the land grant model simply does not work in developing country settings. However, the extension systems that AID supported differed dramatically from extension in the United States. In part, this reflected AID's emphasis on contemporary American extension approaches, rather than extension as it historically evolved. It also reflected AID's acceptance of the strong central planning and national bureaucracies emerging in the post-colonial era.

The U.S extension system was never the kind of national extension bureaucracy characteristic of most developing countries. Nor was the U. S. extension system a vehicle for imposing progress on resistant or ill-informed farmers. Bountiful natural resources have doubtlessly played a role in the success of American agriculture, but the development and application of agricultural science has been at least equally important. This has been accomplished through a historically unique partnership among federal, state, and local governments--a research and extension systems that encompasses federal laboratories, land-grant universities, extension offices, and a variety of other public and private institutions.

The federal government plays an important, but not a dominant role in this agricultural research and extension system. The nearly

billion dollar USDA Science and Education budget represents only a relatively small portion of our nations' total annual investment in scientific agriculture. Indeed, most federal funds are used to support state and local research and extension activities that are only loosely monitored by the federal bureaucracy. This is especially true for the cooperative extension system, which includes about 200 federal professionals, but involves nearly 10,000 state and local extension agents and more than a million extension volunteers.

Organized attempts to diffuse and apply scientific agriculture has a long history in the United States that far predates the establishment of a national agricultural research and extension system. Until the twentieth century, these agricultural extension activities remained the responsibility of independent state and local groups. Initially, these groups were dominated by larger and wealthier farmers, but America's smaller farmers were also pioneers who believed in their capacity for self-improvement. During the first half of the 19th century, their local agricultural fairs become forums for exchanging new methods and ideas. Grass roots agricultural improvement societies began springing up, especially among increasingly prosperous farmers in the northeast and north central states (Scott 1970:10). Agricultural education and self-study became popular and hundreds of agricultural journals and newsletters were founded (Goodwin 1980:1185, Waggoner 1976:722-23). By 1858, the United States contained more than 900 local agricultural societies (Scott 1970:11).

While state boards of agricultural were established to meet farmers' demands for better information and new knowledge in some regions, a separate federal department of agriculture was not created until the passage of the Morrill act in 1862. The Morrill Act also gave each state be given an acreage of federal land the income from which would be used to support a college or university of agriculture. The American land grant system was born.

It would be more than 50 years, however, before a national program of agricultural extension would become a part of this system and few of the new agricultural colleges offered much that was of immediate value to practicing farmers. Indeed, many commentators viewed the first 20 years of the land grant experiment as a disappointing failure: "With few exceptions, enrollments in agriculture were so small as to be almost nonexistent, faculties were weak and often incompetent, and even enthusiasts could not agree as to what should be taught" (Scott 1970:27). The application of science to farming advanced slowly, if at all. It was not until the final years of the 19th century, especially after the passage of the Hatch Act in 1887 providing funds for state agricultural experiment stations, that research oriented agricultural universities emerged. Meanwhile, farmers were organizing politically, and much of the later shape of agricultural extension reflected this political activity.

For American farmers, the later half of the 19th century was an era of rising populist discontent. As the frontier expanded, more

people began farming more acreage, more intensively, with more mechanical equipment, and total agricultural production rose sharply. Unfortunately, prices fell even faster. Soon farmers began organizing to protest their difficulties. In less than 10 years, the National Grange grew to 750,000 members. During the 1880's and 1890's, the Farmers' Alliance grew even faster.

By the end of the 19th century, most of the farmers' populist anger had abated and the Farmers' Alliance and the National Grange had refocused their attention on rural self-improvement and education. Reading circles and libraries were established throughout the rural countryside, agricultural fairs increased in popularity, and the number of farm journals grew rapidly. One byproduct of this new found interest in education was the growth of Agricultural Institutes--traveling lecture programs that placed agricultural experts in direct contact with everyday farmers. Although similar extension activities had been conducted on a more limited basis earlier, the Institute Movement gained increasing momentum in the 1890's. By the turn of the century, Agricultural Institutes were being held all over the country, increasingly under the sponsorship of State Agriculture Departments and land grant universities.

By 1913, more than 3 million people were participating in Institutes across the country each year (Scott 1970:105). Local programs were increasingly coordinated with regional and state-wide efforts--including week long seminars at agricultural colleges,

"corn clubs," and special interest groups. Seed companies, equipment manufacturers, railroads, and other agricultural participants were sponsoring "institutes" as well. The stage was set for the development of a more formal national extension system.

Although the early 20th century saw major advances in agricultural knowledge, relatively little was being transferred effectively to the broad mass of farmers. Land grant colleges and state experiment stations were devoting increasing resources to original research and had little funding for extension and farmer education. Although state and federal scientists began generating hundreds of research bulletins, they soon discovered (like many modern bureaucrats) that most of these reports were ignored by their intended users. While the Institute Movement brought agricultural scientists into the countryside, even affluent farmers remained skeptical about the practical value of the recommendations and small farmers and share-croppers were rarely reached. Soon, a number of larger extension initiatives emerged that brought the benefits of scientific agriculture to a much larger audience of farmers.

The first large-scale effort at agricultural extension was Seaman A. Knapp's emergency program to control the threat of the cotton weevil in the South beginning in 1903. Although the cotton weevil couldn't be eliminated with available technology, USDA researchers developed modified cropping practices that minimized its spread and impact. To be effective, however, the practices had to be adopted by large numbers of poor and often unwilling farmers. Knapp built upon his

earlier experience with experimental farms to recruit a team of local agents who began a series of "demonstrations" conducted with local farmers themselves.

The experiment was a resounding success. Knapp's program gained wide publicity and rapid increases in federal funding. The new extension system, with county agents at least partly supported by the local areas they served, spread throughout the South and Southeast. As the system grew in size, it also expanded in scope, focusing on a wider range of farming problems and developing programs and clubs for rural boys and girls.

Meanwhile, more affluent farmers in the Eastern and North Central states were making increasing demands for information on the land grant universities. In 1905, the USDA therefore established a new Office of Farm Management, headed William J. Spellman, to develop demonstration projects in cooperation with State Experiment Stations. Soon, Spellman and the State Experiment Stations began enlisting district agents to work with farmers. By 1912, these agents were being placed in individual counties with a substantial portion of their salaries coming from local sources.

Much of the pressure to hire these county agents came from local farmers themselves. In 1911, for example, in what is often cited as the first modern extension approach, the "Farm Bureau" in Binghamton, New York, decided to hire a recent agricultural graduate from Cornell University to diffuse innovations to farmers.

Part of the salary was paid by the local railroad (hence, the term agent) and part was paid through donations from farmers. Soon these donations were institutionalized as annual memberships in the local farm bureau (see Rogers 1976:22).

These practical demonstrations and local agents proved far more effective at diffusing agricultural innovations than farmer's institutes, lecturers, or publications. In 1914, Congress passed the Smith-Lever Act, combining Knapp's and Spellman's offices and formalizing the basis for continuing cooperation among federal, state, and local extension efforts. Over the next few years, county agents (and supporting farm bureaus) spread across the country. By 1920 more than two-thirds of America's 3,150 counties had at least one extension agent; by 1935 virtually every county was covered.

From the beginning, funds for extension came from federal, state, and local sources through a variety of matching arrangements. Over time, the federal share of extension funding has increased (initially local sources predominated), although federal funding still remains substantially less than state and local contributions. Beginning in the mid-1930's, extension activities also began to expand substantially beyond production agriculture. By the late 1960's, extension had become deeply involved in more general community development, home economics, financial planning, and even urban services. The number ~~number~~ of state level "subject matter specialists" has also grown, and now nearly equals the numbers of county agents. Over time, the extension service has,

increasingly emphasized its expertise not in farming, but in the "technology" of technology transfer itself.

The mature U.S. agricultural extension system to which AID turned in the 1950's and 1960's, differed greatly from the extension system that existed at an earlier stage in America's agricultural development. Many of the features that AID borrowed from this mature system--an emphasis on extension techniques, community development, subject matter experts, and non-production topics--were appropriate to mid-20th century America, but had little relevance to the developing world. When these extension approaches were coupled with weak research institutions, top-down planning, overly centralized bureaucracies, sociocultural differences, inadequate inputs, and limited markets, it is not surprising that "the American extension model" failed in the developing world.

At the same time, many of the features that helped extension play a key role in American agricultural growth were ignored by development professionals. These include:

- o High levels of farmer participation and farmer self-help, including substantial local payment of extension costs;
- o Strong local farmer groups and strong local control over extension agents;

- o Strong demand by farmers for more rapid diffusion of agricultural innovations;
- o An existing mass of improved technology and appropriate institutions for generating new technology.
- o Extensive participation by a wide range of agricultural participants, including farmers, extension agents, researchers, universities, farm interest groups, local governments, and private firms.

AID'S EXTENSION STRATEGY IN THE 1970'S

The publication of Rice's 1971 report on "Extension in the Andes" marked the end of AID's ambitious attempts at comprehensive extension system reform. Rice summed up the failures of AID's support for national extension systems and suggested an alternative strategy grounded in particular programs of agricultural change and rural development. This approach was reflected in numerous extension activities that AID implemented in the 1970's as part of geographically focused agricultural and rural development projects. While many of these extension activities were successful in their own terms, they suffered from the generic problems that plagued integrated development approaches. In the end, few had any lasting impact on agricultural development or on strengthening indigenous extension systems.

Integrated agricultural development projects provided farmers with a coordinated range of inputs and services--marketing, credit, transportation, fertilizer, seeds, and so forth. More ambitious integrated rural development projects added health, education, and social welfare services intended to promote a broader process of social and community growth. Most of these projects included clearly delineated agricultural extension components.

The strengthes and weaknesses of such integrated rural development (IRD) projects are by now well known. They were based on the simple (and often valid) premise that multiple and interconnected social and economic barriers to development had to be simultaneously addressed for growth to occur. IRD projects therefore provided a whole range of coordinated services, most often through existing public bureaucracies or newly created quasi-public institutions. Coordination, unfortunately, was often easier said than done, and project after project failed to deliver the promised goods. Seeds were available, but not fertilizer. Extension agents visited, but had little improved technology to offer. Health clinics were built, but not the roads on which clients would travel to visit them.

Even when IRD projects delivered planned services and improved the well-being of beneficiaries in the short-term, their long-term impact was unclear. Many IRD projects provided levels of services that could not be sustained by host governments or replicated in other geographic areas. Once projects were completed, new organizations and services often simply evaporated. (See CDIE Program Evaluation Report # , " ")

Still, a number of IRD projects showed that poor, small farmers would alter their agricultural practices when appropriate information and services were provided. They also demonstrated the effectiveness of PVO's in reaching the poorest and most isolated farmers. Yet, while PVO's have an appropriate role in some extension activities, they cannot replace effective national extension institutions.

During the 1970's, some AID projects continued to focus on national extension systems. Instead of seeking broad extension reform, most of these project aimed at selectively strengthening extension institutions by providing training, technical assistance, formal education, equipment, and commodities. While a few projects included innovative mass media, private industry, or institutional linkage components, most improved human resources on the margins and ignored the deeper problems of extension systems that remained overstaffed, undertrained, poorly focused, and out of touch with farmers and researchers. Leadership in extension system reforms had shifted to other donor agencies, in particular, the World Bank.

THE WORLD'S BANK'S TRAINING AND VISIT SYSTEM

Just as AID was abandoning large-scale extension efforts, the World Bank was beginning a major new extension program. Pioneered by Daniel Benor in India, the "Training and Visit" system (T&V), as it came to be called, recognized that extension services in most developing countries were providing little of value to farmers and that broad extension system reform was needed. T&V emphasized improved management at all extension levels, regular training for extension agents, frequent scheduled visits to farmers, and specific technical recommendations to increase agricultural productivity and farm incomes. This would be accomplished through a hierarchically organized extension bureaucracy focused solely on improving agricultural practices.

Key features of the Training and Visit system include (adapted from Benor & Baxter 1984: 8-11):

- o A Field and Farmer Orientation. The T&V approach mobilizes a large number of "Village Extension Workers" and assistants who are in direct contact with farmers. The farmers served by each VEW are divided into groups and each group is visited on a fixed schedule once every two weeks. Extension workers at higher levels--subject matter specialists, researchers, trainers, district extension officers, and senior staff, are also expected to visit the

field often. To ensure that time in the field is spent productively, reporting requirements are kept to a minimum.

- o Regular and Continuous Training. Each Village Extension Worker participates in a regular training program with district subject matter specialists once every two weeks. At this session extension agents are taught specific technical recommendations ("impact points") to pass on to farmers over the next two weeks. The training sessions also provide an opportunity for Village Extension Workers to discuss the recommendations, to modify them to fit local conditions, to bring special farming problems to the attention of subject matter specialists and researchers, and to learn about new research findings. Subject matter specialists provide this training to about ten different groups of Village Extension Workers each fortnight. Zone, district, and subdivisional extension officers and subject matter specialists participate in similar training sessions and in workshops with researchers each month.

- o Specific Technical Messages and Time-bound Work. Village Extension Workers provide farmers with specific technical recommendations ("impact points") at their meetings every two weeks. Recommendations for each area are taught to Subject Matter Specialists at regular monthly workshops and passed on to Village Extension Workers at fortnightly training sessions.

- o Linkages with Research. Subject Matter Specialists and senior extension staff communicate farmers' problems to researchers for investigation and solution. Extension and research staff participate in seasonal and monthly workshops and joint field trips to ensure that production recommendations are adapted by extension workers, as necessary, to make best use of specific local environments and actual farmers resources.

- o Concentration of Effort. All extension staff work only on agricultural extension. All extension staff perform specific duties that are intended to complement the activities of extension workers at other levels. Each staff position has its own clearly defined and realistic job responsibilities, without duplication of effort, aimed at supporting Village Extension Workers. Village Extension Workers concentrate solely on agriculture, and only on those crops and practices that are relevant to a particular season and locality. Through training, attention is concentrated on a few major recommendations aimed at increasing production and overcoming specific constraints that farmers face.

- o Single Line of Command. T&V extension is organized under a single line of technical and administrative command, commonly within a Ministry or Department of Agriculture.

The line of command normally extends from a Director of Agriculture, through the Director of Extension (and senior Subject Matter Specialists), Zone Extension Officers, District Extension Officers (and district Subject Matter Specialists), Subdivisional Extension Officers (and Subject Matter Specialists), Agricultural Extension Officers, Village Extension Officers, and contact farmers. Although support is required from teaching, research, and agricultural service organizations, extension workers are responsible to a unit within only one department, which should be solely accountable for the operation of the extension system.

- o Professionalism All of the previous characteristics define extension as a professional organization, with well trained workers, well informed about current research, able to relate to farmers and communicate their problems, and with sufficient resources and support to provide appropriate advice to farmers.

By the mid-1970's, World Bank sponsored T&V extension had achieved remarkable success in increasing agricultural productivity and farmer incomes in India and parts of Asia. During the late 1970's and 1980's, however, as experiments with T&V diffused more widely, the claims became more muted. T&V, it seemed, was proving more difficult to implement successfully in Latin America and Africa.

At least in part, this variation reflected the characteristics of the particular agricultural systems in which the T&V was being applied. In India and Asia, field crops, such as wheat, maize, and rice, were emphasized and agricultural conditions were relatively uniform across large geographic areas. Recommendations developed at the national or regional level were relevant to large numbers of farmers. In Africa and Latin America, on the other hand, a wide range of crops were adapted to a diverse spectrum of micro-environments. It proved very difficult for strongly centralized extension bureaucracies, even better managed ones, to develop specific technical recommendations tailored to such a wide range of farming systems and problems.

Cost was also a factor. While large numbers of field agents, a manageable ratio of agents to farmers, and adequate support services may be desirable and necessary, many countries could not afford them. As a result, "modified" T&V systems, with fewer, less mobile, agents, serving larger numbers of farmers became the rule rather than the exception.

T&V also faced organizational problems in attempting to establish flexible, responsive bureaucracies in countries with long histories of bureaucratic overcentralization and inertia. Not surprisingly, many newly reorganized extension systems responded sluggishly to farmer needs, lacked technical recommendations that reflected current research, and failed to tailor farmer messages to local

farming conditions. In Malawi, for example, technical messages disseminated by the modified T&V extension system had to be approved by a single national review board. This board took two to three years to approve a new technique and could make little effort to tailor approved "packages" to local needs or problems.

Finally, T&V's bureaucratic approach to extension is explicitly designed to deliver a relatively small number of specific technical messages to farmers. Despite the best intentions of extension planners, Village Extension Workers tend to learn these messages by rote. It is very difficult for what is basically a bureaucratic, top-down information delivery system to foster extension agents who can flexibly respond to the needs of local farmers.

T&V supporters note that their primary aim is simply to make inefficient and ineffective extension systems more relevant and better managed. Yet, while this may be a worthy goal, some aspects of the T&V approach seem incongruent with AID's larger development philosophy. T&V begins with the assumption that extension should be the responsibility of a single, national extension bureaucracy. T&V seeks to improve extension planning and management to more effectively pass down centrally determined recommendations to farmers.

An alternative to this emphasis on bureaucratic management would be an emphasis on farmer participation and farmer demand for extension. This would require an important role for independent extension agents who were responsive and responsible to local farmer

groups. It would require regional institutions that combine research and extension responsibilities and have direct contacts with farmers. It would likely encompass farming system research, bottom-up planning, participation by non-governmental organizations, and limited central coordination. One need not, in other words, begin with the World Bank's premise that better national bureaucracies are the answer. One could begin instead with a participatory approach, that fits AID's experience and expertise, resembles American extension as it historically evolved, and both AID and host governments can afford. It is also an approach that can build on AID's "four pillars" through a variety of innovative extension initiatives.

INNOVATIVE APPROACHES TO AGRICULTURAL EXTENSION

In his opening address at the Michigan State University Conference on "The International Role of Extension," on March 31, 1985, AID Administrator M. Peter McPherson noted that

In the face of harsh realities in developing countries, and based upon a better understanding of our own evolutionary experience, the initial AID emphasis on extension as a primary means of increasing agricultural production has been substantially modified. Recognizing that improved technology is simply not available in many cases, we have increased our support for research. There are now relatively few AID projects that focus exclusively on organized public extension efforts. We are [now] exploring several new approaches intended to test the effectiveness of technology transfer to Third World farmers.

Administrator McPherson went on to outline an extension strategy emphasizing support for private sector extension initiatives, the use of mass media techniques to reach broad audiences, and selectively strengthening public extension institutions.

During the summer of 1985, AID's Working Group on Agricultural Technology Management began examining ways in which AID missions could implement these recommendations. By February of 1986, the Working Group had prepared a report outlined new extension

opportunities based on assessments of activities by a wide range of donors, host governments, and non-governmental organizations. The major conclusions of this report are summarized below.

Strengthening Public Extension:

The Working Group noted that nearly every country has some form of public extension system and that public extension institutions will continue to play a major role in agricultural development and change. However, extension in most developing countries continues to face an adverse external environment (inappropriate policies, a lack of "farmer-ready" technology, insufficient inputs, inadequate infrastructure, and limited budgets) and a variety of internal weaknesses (poor linkages with research, inadequate training, limited contact with farmers, insufficient resources, and fragmented authority).

One approach to solving these problems would be thorough-going reform, but despite AID's early attempts to establish effective university-based extension systems, extension in most developing countries remains centralized in national bureaucracies. Although the World Bank's T&V system embodies extensive management reforms, this approach has not yet achieved significant results in Africa and Latin America. Similarly, AID's attempts at sidestepping national bureaucracies through special extension organizations has created new problems of sustainability and reintegration. The Working Group concluded that AID's primary approach to extension reform should be embodied in policy dialogue activities.

Since the early 1970's, a number of AID projects have tried to selectively strengthen public extension institutions. The Working Group concluded that future projects should emphasize activities that

1. Improve communication, coordination, and cooperation between extension institutions and other important agricultural participants, including researchers and farmers, by

--linking research and extension through new organizations or multi-agency planning groups;

--applying the farming systems research and extension approach; and

--linking the private sector with extension by including private farmers and agribusinesses as major contributors in planning, coordinating, and implementing public extension activities.

2. Develop human resources by providing formal education, on-the-job training, or technical assistance to enhance the skills, training, and experience of extension agents and managers.

3. Improve the mix of extension methods and complement traditional one-to-one extension agent/farmer contacts by
 - making better use of extension volunteers and paraprofessionals;
 - initiating direct farmer-to-farmer exchanges;
 - utilizing mass communications, including radio, film, print, and other organized communication campaigns (including social marketing techniques), to reach large audiences at low cost; and
 - using modern information techniques (microcomputers and specialized agricultural information databases) to get more accurate and relevant information to extension agents in the field.
4. Organize farmers to help themselves through farmers organizations; cooperatives; credit societies; water user associations; and other groupings based on gender, age or other common characteristics.

The Working Group provided few examples of how these goals have actually been achieved in AID projects. However, the Report does list hypothetical extension problems and possible mission interventions to alleviate them. The Working Group emphasized that

any attempts to strengthen public extension institutions should be based on prior assessments of agricultural development prospects and a realistic expectation that targeted improvements will produce meaningful results.

Stimulating Private Sector Extension:

The agricultural private sector is extremely diverse, encompassing individual small farmers and vast corporate estates; itinerant tool peddlers and multinational manufacturers; farmer self-help groups and industry associations. Despite their differences, all of these enterprises share a common market orientation, striving to make profits, or at least break even, by selling goods and services. Such private sector organizations become involved in extension because they believe that this involvement will increase their profits, enhance their survivability, or provide other economic benefits for their members.

Effective private sector extension activities require appropriate host government policies (including an economic and regulatory environment that allows private firms to set competitive prices and obtain acceptable returns), adequate infrastructure, and supportive public agencies. Even so, the private sector's role in extension remains circumscribed. Private firms are oriented primarily towards commodities that can be sold profitably in cash markets and are more likely to provide extension services when they are selling products which, because of patent, trade secret, or marketing advantages,

only they can provide. Private firms are also more likely to promote higher cost inputs--hybrid seeds, chemical fertilizers, and machines--that produce high-value commodities. Within these limitations, however, private firms have important extension roles to play.

One of the most common reasons that private firms become involved in extension is to promote or increase the sales of their products. Private producers in developing countries, as in the United States, often provide information to help farmers take maximum advantage of the products (seeds, fertilizers, tools, and services) they are selling. Sometimes private firms will even promote a broader range of improved farming practices intended to increase the overall security and income of their farm household customers. The Working Group Report cited numerous examples of such private sector extension from all over the world. Most common was the role of seed companies in providing information and services on the use of improved varieties. Similar extension services have also been provided by agricultural feed companies, fertilizer providers, cooperatives, and credit institutions.

Private firms also become involved in agricultural extension as a means of ensuring the supply and quality of the agricultural commodities they process and market. In some countries, large agribusinesses have organized groups of small farmers for whom they sell inputs, offer credit, provide technical advice, and purchase crops. Sometimes these activities involves arrays of

quasi-independent satellite farms, sometimes corporately owned industrial agribusiness cores, and sometimes just loosely organized groups of farmers. Often, however, the extension services provided include a wide range of food and subsistence crops. Examples mentioned by the Working Group include ALCOSA vegetable processing and marketing in Guatemala, CBIAC vegetable production in the Dominican Republic, AMUL dairy operations in India, PINAR milk processing in Turkey, Charoen Pohphand pig raising in Thailand, Booder sugar processing in Kenya, and British American tobacco operations in Kenya, Sri Lanka, and several other countries.

Another reason that private firms provide agricultural extension is to develop and protect their farm investments. Commercial banks, farmer cooperatives, producer organizations, and farmer self-help groups that have provided credit to farmers in order to make profits, meet government lending requirements, or respond to members' needs, may also provide extension services. Examples include the Agricultural Development Bank in Northeastern Thailand (an IFAD/World Bank project), the National Rice Growers Federation in Colombia, the CEPLAC cocoa producers organization in Brazil, and the FONAGRO cotton and corn producers association in Peru.

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There are numerous other situations in which private organizations lack sufficient incentives or resources to provide extension services alone, but where they can still usefully complement public extension initiatives or provide contracted services more efficiently. Private firms, for example, sometimes cooperate in

joint training programs with public agencies or provide corporate sponsorship for formal academic programs. PVO's and NGO's often receive support from public extension agencies or local development authorities to provide specialized extension services to target populations in particular areas. Indeed, between 1975 and 1984 nearly 15% of AID's extension activities involved PVO's or NGO's. Another, thus far untested, approach would utilize local merchants and itinerant peddlers as dissemination channels for public extension information, particularly to farmers in isolated areas (see, for example, Solem 1985). Finally, private firms have played major roles in mass communication activities. In the Philippine's Massagana 99 project, for example, a private firm was hired to conduct a national social marketing campaign to increase rice production.

While the Working Group's report provided numerous examples of private sector extension activities, few of these examples involved AID projects. As the report notes, "AID's current portfolio includes varied, but isolated, examples of agricultural research, credit, marketing, and extension projects that involve various forms of private sector participation." The Working Group does suggest, however, ways in which AID missions could facilitate future private sector involvement by providing support for improved host government policies; for training in private sector skills; and specific activities, such as feasibility studies, investment guarantees, short-term financing, management consulting, and otherwise encouraging public and private sector cooperation.

Mass Media Extension:

Extension messages have traditionally been disseminated through direct contacts between extension agents and individual farmers or small groups of farmers. While such one-to-one extension activities can effectively diffuse new agricultural techniques, they are not particularly cost-effective. AID has therefore supported a number of projects aimed at using mass communications (primarily print and radio) to reach large numbers of farmers simultaneously. The Working Group noted, however, that there is still great potential for further increasing the coverage and impact of extension through more sensitive, comprehensive, and better integrated mass communication initiatives.

Promising approaches identified by the Working Group include:

- o Open Broadcasting. Daily or weekly radio broadcasts of informational programs for farmers are already common in developing countries. Despite exceptions (e.g., the Developing Countries Farm Radio Network in Canada) many of these programs consist of dull, and mostly irrelevant, studio talks by panels of agricultural technicians. Open radio and television broadcasting can be an effective extension vehicle, however, given adequate training, resources, and production skills and effective coordination with other communication techniques and agricultural services.

- c Advertizing and Social Marketing. Social marketing involves the use of mass media advertizing techniques to influence the acceptability of socially beneficial beliefs and the adoption of socially beneficial practices. In the United States social marketing campaigns have been mounted for a variety of causes ranging from increasing seatbelt use to decreasing smoking. AID has successfully used social marketing techniques to increase contraceptive use and promote oral rehydration therapy in projects throughout the world. With a few exceptions, such as the Massagana 99 campaign in the Philipines, social marketing has received little use in encouraging the adoption of new agricultural practices.

- o Print Media. Materials such as posters, fliers, manuals, booklets, and newspapers have been used as extension agent handouts, instructional aids, in farm forums, and within advertizing and social marketing campaigns. When used well, print media can provide a graphic reminder of extension messages and have a multiplier effect as messages are passed from hand to hand. Like open broadcasting, however, print media are best used as components of a more comprehensive communication system.

- o Multiple Channel Systems: The Campaign. Specific communications media are best used as part of a more

comprehensive communications systems involving the a variety of information channels, including face-to-face contacts. Some programs have consciously taken advantage of multiple channels by organizing broad communication campaigns focused on particular issues, such as health, nutrition, family planning, and literacy. Social marketing activities generally fall within this category.

- o Multiple Channel Systems: Distance Teaching. Distance teaching generally involves an open broadcasting program companies coupled with formal instruction and a variety of teaching materials. In its use of multiple communication channels, it is a calmer corolary to national campaigns. One of the best known distance teaching activities in agriculture is the INADES-FORMATION program in West Africa, which has provided correspondence programs for extension agents and farmers since 1962.

- o Comprehensive Communications Systems. Although there are many examples of piecemeal applications of mass media to agricultural extension, there are few cases in which agricultural programs have developed comprehensive communications systems. One exception is the Basic Village Education project in Guatemala which experimented with a variety of radio, face-to-face contact, farmer forums, and other communications techniques as part of a broad support system for agricultural extension.

Although AID has included mass communications projects in a variety of specific extension efforts, the Working Group noted that extension projects rarely include a systematically planned communications component. Future extension projects could include mass communication as integral parts of project plans, devise new projects using mass communications approaches as a catalyst for change, participate in S&T's new centrally funded "Communication for Technology Transfer in Agriculture" project, or draw on a variety of available technical assistance to assess the feasibility of mass communication methods.

Overview of Working Group Findings:

Although the Working Group provided interesting descriptions of innovative extension practices--particularly private sector extension--few of the examples were of AID-sponsored activities. The Working Group's recommendations--to provide better extension training, conduct more private sector feasibility studies, and deliver more technical assistance for mass communications--offer little specific guidance for missions. The Working Group's does repeatedly emphasize that the impact of extension is determined not merely by the efficiency and effectiveness of extension, but also by the place of extension within a larger system of technology transfer and agricultural development. This implies that missions should carefully assess wider opportunities for agricultural growth--the existence of appropriate government policies, markets, transportation, agricultural inputs, research institutions, and farmer motivation--before investing in extension improvements.

AN OVERVIEW OF AID'S EXTENSION PORTFOLIO (1975-1984)

A search of AID's Development Information System (DIS) identified 1,065 projects initiated between 1975 and 1984 that involved at least some agricultural extension activities. An initial examination of project summaries identified 386 cases in which extension appeared to be a major concern. A more detailed review of available documents eliminated another 120 projects in which extension components were too indirect or in which the orientation was primarily towards research.

A descriptive analysis of the remaining 266 projects was conducted based on a review of project documents and abstracts. This analysis focused on broad project characteristics, such as project scope, implementing organization, method of implementation, and major project activities. The analysis revealed a diverse extension portfolio that included a wide range of project emphases.

The vast majority of the 266 projects (81.5%) concentrated on extension activities within a single country. However, this included everything from projects focusing on a single locale (e.g., establishing a new extension center in northeast Thailand) to projects supporting entire national extension systems (for example, in Malawi). Another 8% of the projects had a multinational focus (for example, the Eastern Caribbean), while 5.7% covered all developing countries (centrally managed Science and Technology activities, for the most part). Only 3.3% of the projects were

conducted directly with universities, another 1.1% were conducted with international institutions (such as IRRI), and for one project (.4% of the cases) the scope of activity could not be determined. (See Table 1)

The choice of implementing organization--the entity directly responsible for conducting project activities--was strongly biased towards governmental institutions. More than 64% of the projects were implemented by national government organizations, including line ministries, departments, and offices. Private voluntary organizations (PVO's) were the second largest category, implementing 13.5% of the projects under consideration. Universities and quasi-independent institutes were the next largest categories, implementing 7.0% and 5.6% of the projects respectively. For a small percentage of projects (1.1%), the implementing organization could not be determined from available project documents. (See Chart 2)

Approximately 50% of the projects explicitly focused on developing the institutional capabilities of implementing organizations. In this regard, about 33.4% of the projects provided organizational support for existing extension services, while 16.5% established new extension centers or programs. While national governments, in various forms, remained the primary implementer of agricultural extension projects throughout this period, there is some evidence of a shift towards increased use of PVO's over time.

SCOPE OF THE PROJECTS

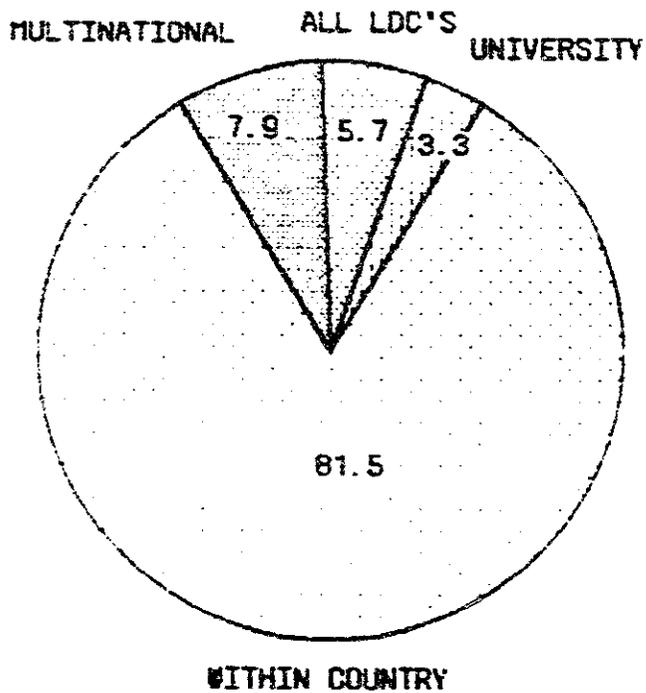


CHART ONE

IMPLEMENTING ORGANIZATIONS

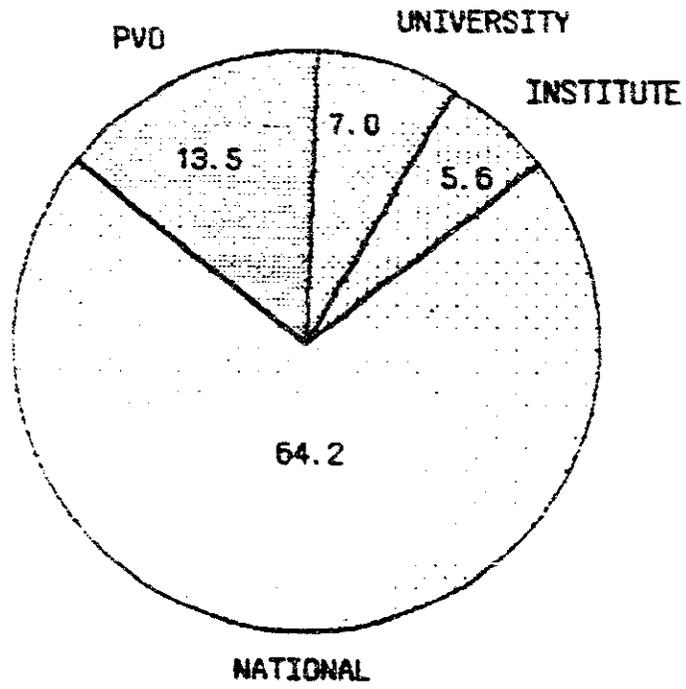


CHART TWO

The third major category of analysis was the kind of extension support activities the projects provided. Since many projects utilized more than one method or approach in seeking to achieve their intended goals, the percentages sum to more than 100%.

As Charts 3 and 4 indicate, traditional approaches to agricultural extension continued to predominate during the 1975-1984 period. The majority of the projects (56%) provided various kinds of short-term technical training for extension agents and/or farmers as a major component of project activities. The second most common approach, utilized in 27% of the projects, was to provide formal education, primarily for extension agents and other extension professionals. Traditional demonstrations of new farming techniques at universities or institutes was the third most common activity, utilized in nearly 23% of the projects. This was supplemented by technical assistance in 15% of the projects.

Fewer projects made use of innovative extension approaches. The most important of these innovative activities, utilized in 14.2% of the cases, was a specific attempt to strengthen research and extension (R&E) links, usually by creating new organizational structures or committees. About 7.5% of the projects involved a clearly defined mass media (most often print media) component. Just over 6% of the projects identified activities oriented towards meeting the needs of female farmers, while another 6% sought to implement some kind of integrated farming systems research and extension approach. Practitioner oriented, "on-farm" demonstrations

TRADITIONAL APPROACHES IN

AGRICULTURAL EXTENSION (%)

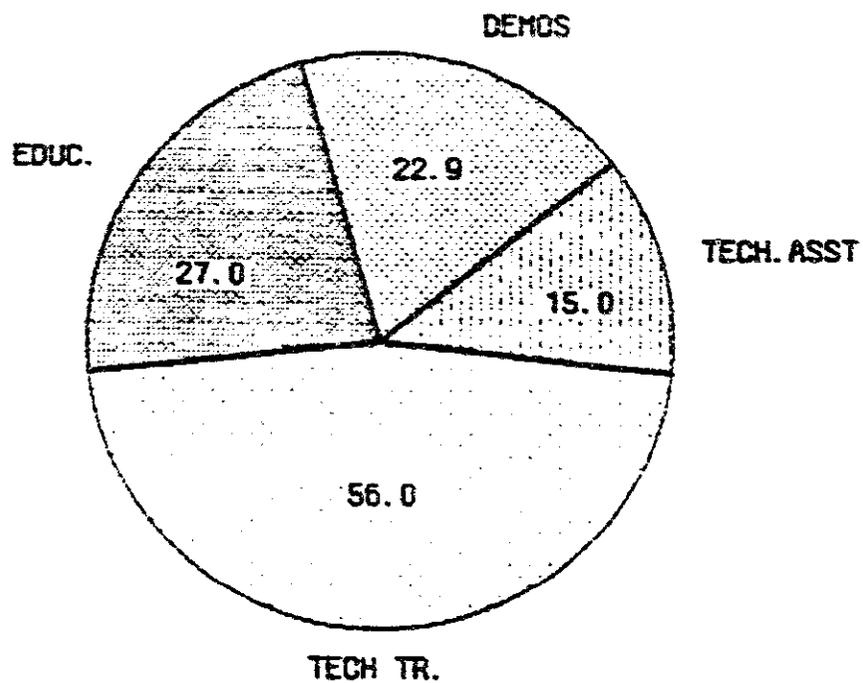


CHART THREE

INNOVATIVE METHODS IN
AGRICULTURAL EXTENSION (%)

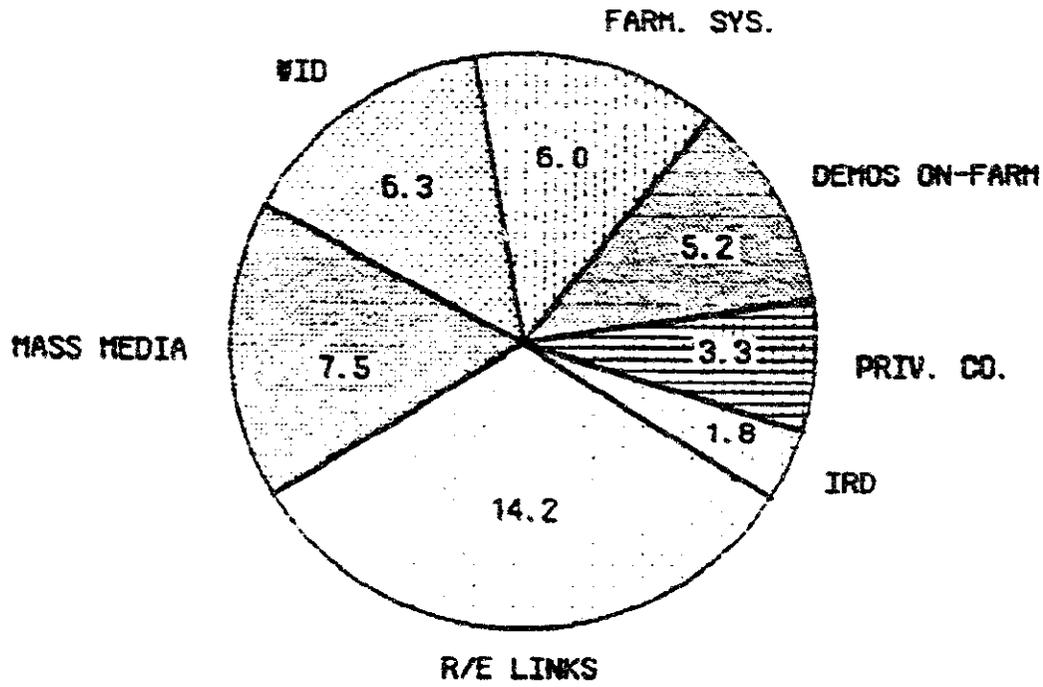


CHART FOUR

were used in 5.2% of the projects. However, private firms were involved in only nine projects (3.3%). In all, only 65 of the 266 projects (24.4%) made use of what could even loosely be termed "innovative" extension approaches. Clearly, such innovative approaches have not yet become a major part of AID's extension package.

To summarize, more traditional training, education, and demonstrations have remained AID's primary extension interventions during the past ten years. While more innovative extension approaches, involving the use of mass media, the mobilization of private firms, and the selective strengthening of public institutions, are now receiving increasing emphasis, AID's experience with such approaches remains limited. Some of the documented examples that do exist are examined in the next section.

EXAMPLES OF "INNOVATIVE" AID EXTENSION PROJECTS

The categorical analysis of AID's extension portfolio revealed that only a relatively small percentage of the extension projects initiated during the last ten years included innovative components. A more detailed look at a sample of these projects showed that in most cases, innovative components were either relatively minor or were more traditional than summary documents suggested. This no doubt reflects, at least in part, lags in project reporting, since most innovative projects (for example, farming systems research and extension projects) have only been initiated in the last few years. But the dearth of examples likely also reflects limited action. While there has been much talk of new extension approaches, AID's experience with new methods remains quite thin.

Based on the descriptive analysis of project abstracts, twenty-nine seemingly "innovative" projects were chosen for which all available documents were obtained. A thorough review of this documentation, revealed only eight projects that had sufficient materials for adequate assessment. Many of the more seemingly innovative projects were still being implemented and had not yet been evaluated (see Appendix I for a list of these projects). Other innovative projects may not even have been entered yet in the Development Information System.

Given the small size of the sample, projects were assessed individually, and cannot be considered representative of a more general extension approach. Three of the projects included a mass media component; seven attempted to strengthen the links between research and extension; two of the projects focused on women in development; and one of the projects involved a private company. Despite the small size of the sample, several interesting characteristics and issues emerged.

1. Aquaculture Development in Egypt (#2630064)
(Period: 1978-1984; LOP Cost: \$27,500,000)

This project sought to increase the availability of high quality protein in Egypt by providing capabilities for the sustained development of the fish farming industry through improved institutions for planning and coordination, applied research, training, and extension. The project sought to selective strengthen public extension activities through four main extension components: 1) building a new center to coordinate aquaculture research and extension activities; 2) establishing and providing technical assistance to a National Committee for Aquaculture development; 3) establishing demonstration plots adjacent to the National Aquaculture Center to education farmers and to serve as models for fish farming expansion; and 4) establishing both formal and informal

extension training programs in aquaculture to support the establishment of an additional 5,000 feddans of fish farms throughout the Sharkia-Ismalia area.

Unfortunately, the project experienced severe implementation difficulties and by 1982 had achieved few of its original goals. Four years after initiation, the project was already two years behind schedule. Construction was just beginning and planned technical assistance was not yet being provided. Even so, participants who were leaving for long-term research and extension training were not scheduled to return until after technical assistants departed. An audit report in 1982 recommended that the project be terminated if implementation problems could not be resolved in a timely fashion. By early 1986, the project was still being implemented, but was falling further and further behind schedule. According to mission staff (informal communication), the project was overly ambitious, underfunded, and poorly designed from the start. Certainly, few of its initial goals for improving research and extension coordination were realized or even tested.

Fish Production System Development in Jamaica (#5320059)
(Time Period: 1979-1984; LOP Cost: \$4,107,000)

This project sought to increase food production, income and employment and to reduce food imports and foreign exchange drains by establishing a regional training program in fish production. The project's major extension components included both short and long-term training for ninty new extension agents, training in fish

production for nine hundred and twenty farmers, advanced aquaculture training for forty-five students at the Jamaica School of Agriculture, and the establishment of a fish hatchery/demonstration facility with 20 acres of ponds.

Overall, this aquaculture project accomplished a great deal more--especially in terms of production goals--than the project in Egypt. By the Mid-Project Evaluation, 450 new fish farms were in operation and many additional farmers had applied for assistance. However, the extension components of the project appear less successful, raising questions about how necessary extension really is for this kind of agricultural technology transfer. Only 49% of those targeted for direct farmer training, the most innovative extension element, had actually received training by the mid-term evaluation. Formal training for agriculture students and extension agents lagged even further behind schedule and the primary training facility, the Jamaican School of Agriculture, had been closed. Yet farmer demand was high, fingerling production facilities were well established (in part, through an earlier project), and fingerling distribution to farmers was proceeding ahead of schedule.

Education Media for Women in the LAC Region (#5980574)

(Project Period: 1978-1983; LOP Cost: \$845,000)

This project sought to increase and make more effective the participation of low-income rural women in the agricultural sector by developing and testing a systematic approach to disseminating

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farming, marketing, and food processing information to women while increasing their awareness of the agricultural services for which they are eligible. The implementing agency (the Interamerican Institute of Agricultural Sciences (IICA)) was supposed to gather data on how rural women received agricultural information and to develop a set of guidelines, based on this data, for using various approaches (particularly mass media) in reaching rural women.

In some respects, the project was proceeding successfully by its mid-term evaluation. According to the Project Evaluation Summary (PES) prepared in 1980, initial field surveys in the Dominican Republic indicated that "appropriate new economic activities for women were developed, promotional visits and training meetings were held, and necessary supplies were distributed." However, the original mass media focus of the project had been abandoned. As the PES noted, "a major problem is the lack of mass media training activities. IICA did not fully appreciate the intent of the project to explore low-cost media based training strategies for rural women. As a result, an IICA project manager without media experience was hired and a site was selected in which farm women have little access to media. Indeed, the project field manager "persistently argues that communication media cannot teach effectively." Thus, while the project successfully focused extension activities on women, at least at initial field sites it failed to test innovative communication strategies.

Agro-industrial Export Development in Honduras (#5220120)

(Time Period: 1976-1981; LOP Cost \$1,700,000)

This project sought to involve private companies in developing and marketing agricultural export products, particular processed and fresh fruits and vegetables, by providing training and technical assistance both for farmers and agribusinesses. Although the project did not have a particularly strong extension component, it was included in the sample because it was the only private sector extension project for which sufficient documentation could be found.

The private company selected to develop the processed vegetable component of the project was Mejores Alimentos. Phase I of this component called for farmers to plant 325 hr. of tomatoes under contract for sale to Majores Alimentos at a fixed price. Production credit was to be disbursed directly from the National Development Bank. A technical assistance team composed of AID contractors, Majores Alimentos employees, and GOH extension agents was to be provided.

Unfortunately, this component of the project was plagued with problems from the start. When implementation began in 1977, only one specialist (working for Mejores Alimentos) had any experience growing tomatoes and few of the participating farmers had ever grown the crop. The farmers were required to buy inputs from Mehores Alimentos (the National Development Bank was billed directly) and to pay for transporting tomatoes to the company's plant. Losses to

farmers in the first year were heavy, farmers waited up to two years for payment, and implementation ground to a halt. According to the mid-term evaluation, the major problem was that farmers bore all of the risk of expanding tomato production. The company was simply not committed to AID's goal of assisting small farmers or in promoting exports to U.S. markets.

The second project component, fresh vegetable production, fared better. After experimenting with a variety of crops, the Standard Fruit Company successfully contracted with small farmers to grow cucumbers for export, though the number of farmers was only a fraction of the number envisioned in the project paper. The final evaluation also criticized Standard Fruit and the government of Honduras for providing insufficient technical assistance, training, and extension to small farmer producers.

As this project indicates, successful involvement of private firms with small farmer extension requires a "hands-on commitment by the core company and intensive managerial, technical, and field-level supervision" (Agricultural Technology Working Group 1986). This, in turn, means that a company must participate in extension activities not merely as a project contractor, but because it sees a long-term interest--and profit--in providing extension services. This commitment was lacking in the case of Mejores Alimentos and remained weak even in the case of Standard Fruit.

Nonformal Vocational Education in Thailand (#4930295)

(Time Period: 1980-1983; LOP Cost \$500,000)

This project sought to increase and redirect resources and services to economically depressed areas to increase the productivity, income, and employment opportunities of poor farm families. The project sought to strengthen public extension institutions in Thailand by providing technical agricultural, survey research, and mass media training for mobile extension teams that would serve local settlers/trainers who would disseminate extension messages to small farmers in turn.

Sixty extension workers received training in the project's first phase. After receiving this training, extension workers were expected to conduct a village survey to provide a baseline comparison for targeted villages. Next eight mobile teams of extension agents and audiovisual experts were formed. These teams were responsible for choosing the settlers/trainers with whom they would work, for training them, and for supporting them through field visits to their villages. The teams were also responsible for gathering information on agricultural conditions and changes in the villages and for relaying questions and problems to the regional training center. The final phase of the project involved a follow-up survey of 17 villages that actually received extension assistance.

The most innovative aspects of the project involved the use of mobile extension teams, the emphasis on audiovisual materials, and the use of indigenous settlers/trainers as extension channels. Although the project paper viewed the use of such settlers/trainers as "new and frankly experimental," Thailand has a long history of volunteerism among the rural poor. The project, unfortunately, failed to achieve most of its goals, and was terminated ahead of schedule.

According to the Project Audit Report, major problems included:

- 1) reluctance on the part of many Thai officials to accept the concept of non-formal education for trainers/settlers and farmers;
- 2) lack of commitment by the Director of the Northeast Regional Training Center to the project;
- 3) failure to utilize the mobile teams as originally planned to train local settlers/farmers;
- 4) the development of curricula and texts that were too complex to be easily understood by farmers.

Without a final project evaluation, it is impossible to determine why the mobile teams were not utilized as intended or in what ways training materials were inappropriate. This makes it difficult to gauge the potential of similar efforts to mobilize local farmers as extension participants.

Integrated Regional Rural Development in Jamaica (#5320046)

(Time period: 1977-1984; LOP Cost \$15,000,000)

This project sought to improve the standard of living of farmers in Jamaica by increasing agricultural income and by providing improved roads, housing, electricity, and water. In particular, the project sought to develop an agricultural model that could be used to increase agricultural production and control soil erosion on small hillside farms in the Pindar/Two Meetings Watersheds. The project included a major extension component intended to strengthen public extension institutions by training extension workers, establishing a "model" extension system, and supporting local farmers' organizations.

In the first phase of the project, thirty extension agents received technical training, particularly on topics related to soil erosion control. After this training was completed, five demonstration and training centers and fifty small-farm subcenters were to be established to demonstrate the benefits of land terracing and multiple and continuous cropping techniques. Extension agents were expected to assist participating farmers in developing farm plans and selecting and using appropriate crop and cultivation techniques. The extension agents were also expected to advise farmer organizations, such as the Jamaica Agricultural Society and the People's Cooperative Banks, and to work closely with farming systems research specialists.

According to the 1980 evaluation, the project met some of its erosion control goals, but failed to achieve its broader extension aims. Overtime, the project became increasingly oriented towards soil conservation issues, while information on agricultural production techniques remained deficient. As the evaluation noted, "what must be understood and continually repeated, is that IRDP [is supposed to be] a development project with a strong soil conservation component, not a soil conservation project with development aspirations.

The major criticism of the project revolved around the fact that research and extension components had become "de-linked." According to the evaluation, researchers "are developing their own agenda while extension activities proceed apart. Although extension agents were helping farmers treat their land for soil erosion, they were providing little if any information about improved farming systems, availability of credit, marketing opportunities, or prices. Extension agents also failed to make a serious effort to work with small farmer organizations or to encourage their participation in the project. The project's failures, in other words, involved nearly all of its more innovative extension activities, including efforts to improve research and extension coordination, apply a farming systems perspective, and increase the involvement of small farmer organizations.

Adaptive Crop Research and Extension in Sierra Leone (#6360102)

(Time Period: 1978-1987; LOP Cost \$9,000,000)

This project sought to increase smallholder productivity by developing a food crop adaptive research and extension system that would be more responsive to the needs of rural smallholders. It included major components intended to strengthen public extension institutions by establishing a cooperative research and extension center, training extension workers, extending more appropriate farming technologies, and completing a ten year countrywide research/extension plan. One of the main objectives of the project was to "develop an efficient and effective extension system that can be replicated throughout Sierra Leone."

The project sought to actively involve rural smallholders in the research and extension process and to directly link research and extension activities. More than 675 farmers were selected to participate in the project by receiving field demonstrations of new farming techniques and crops. An additional 20,000 farmers were to be provided with "minikits" consisting of planing material/seeds, cuttings, fertilizer, and cultivation instructions. To support these activities, thirty extension technicians were to be trained in field data collection, cropping systems, basic agronomic studies, soil fertility, farm management, and extension communication techniques. The project also included a mass media component (radio farm forums and the development of audiovisual materials) as well as activities specifically targeted at female smallholders.

A midterm evaluation in 1982 found that data collection activities were proceeding as planned, but worried that much of this data would remain unused because of a lack of coordination between research and extension. The project audit report in October of 1984 was much more optimistic. Despite labor shortages, insufficient storage facilities, and crop losses from insects and pests, the project had:

- o established a U.S. technical team that was providing effective support for local research institutions and coordination with international centers;
- o trained 50 extension agents and established an extension system to transfer research results to farmers;
- o involved 675 farmers in research and demonstration of new crops and techniques; and
- o distributed minikits to nearly 20,000 additional farmers.

The project was criticized, however, for a lack of sufficient monitoring and evaluation. Although the 675 participants in on-farm trials and demonstrations had experienced substantial increases in farm yields, no comparisons had been made with farmers outside the program. Nor had any information been collected on the experience of the 20,000 farmers who had received minikits. As a result of the audit report, a study of farmers who had received minikits was initiated. Although the project appears to have successfully increased agricultural productivity, little information is available on the project's innovative farming system, research/extension coordination, or on-farm testing project components.

Senegal Cereals Production II (#6850235)

(Time Period: 1979-1984; LOP Cost:)

This project sought to increase productivity in the groundnut basin of Senegal to help the government meet its long-range food self-sufficiency goals and to improve the well-being of farm families. The project was a follow-up to a major cereal production project implemented during the 1970's. The new project started controversially, since there was substantial disagreement within AID whether the earlier project had achieved its goal of increased millet production.

One of the primary aims of Senegal Cereals Production II was to strengthen public extension by improving research/extension links, targeting extension services to female farmers, using more effective mass communication techniques, and upgrading the skills of extension staff. One major component was the establishment of an audiovisual center to develop more effective extension materials. Although the mid-term evaluation reported delays in construction, by project completion the audiovisual center was producing a variety of improved extension materials.

Another major component of the project was the establishment of a "Women in Development" extension unit. Early in implementation the WID component was merged with other extension activities, but according to the mid-term evaluation initiatives targeted at women--communal fields, sheep fattening, woodlots, and poultry

raising--were proceeding effectively. However, a later Impact Evaluation report noted that these activities remained less than entirely successful, in part because the USAID project manager "tended to neglect the WID component."

Although the project paper was supposed to train extension workers in agricultural topics, the implementing agency (SODEVA) reoriented this training towards functional literacy. In any case, the training component had little impact on the quality of extension messages or the effectiveness of extension activities.

In the end, the Senegal Cereals Production II project failed to achieve its goal of increased millet production. External conditions were major factors, including poor rainfall, high input prices, a lack of credit, and insufficient fertilizer. The midterm evaluation noted that during the course of the project, "the supply system for the factors of production and the agricultural product purchasing organization virtually disappeared." However, the project's implementing agency also experienced extensive turnover of personnel and had serious conflicts with AID over financing. In the end, some agricultural radio programs were produced, links between research and extension were tightened, and better extension materials were developed, but due to implementation difficulties most extension messages failed to reach targeted farmers.

Developing a Model Extension System (#)

(Time Period: ; LOP Cost:)

Although this S&T funded project was not included in our original sample, it has a direct bearing on the development of new extension initiatives. The project, implemented by the International Program in Agricultural Knowledge Systems (INTERPAKS) at the University of Illinois, was intended to develop guidelines for "model" extension systems based on assessments of extension practice in the field. INTERPAKS quickly decided, however, that a single "model" of agricultural extension would not be appropriate in all settings and that extension was only one factor in transferring improved agricultural technology. The project was therefore refocused to develop a diagnostic tool for broader assessments of agricultural technology transfer systems in developing countries.

At this stage, a preliminary model has been developed and is being field tested. Thus far, the model's specific criteria (publications per researcher, farmers per extension agent, percentages of gross agricultural product spent on research and extension, appropriateness of policies, etc..) seem relatively mundane, but the overall framework seems extremely significant. It is based on a clear realization that extension improvements cannot be developed in isolation from the wider agricultural technology transfer system. Extension projects, in other words, should be part of a larger agricultural development strategy.

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TOWARDS AN EXTENSION STRATEGY FOR THE 80'S

This study's initial goal was to identify useful models for implementing innovative extension activities based on a review of AID's documented extension experience. This goal, unfortunately, has not been realized. The documentary evidence simply does not reveal much in the way of innovative extension activity. Most new initiatives may simply be too new to be captured through routine project monitoring, evaluation, and reporting. While the Agricultural Technology Management Working Group's Extension Report suggests interesting ideas and approaches, it provides few examples of AID experience and only limited guidance for translating ideas into actions to be supported by AID missions.

At the same time, the experience review yielded a number of interesting findings:

- o During the past ten years, most of AID's extension activities have involved relatively traditional attempts to strengthen existing extension systems or to create parallel extension organizations through training and technical assistance.

- o Most of AID's extension activities appear to have been developed without clearly defined long-term extension goals or clear strategies relating extension to larger technology transfer and agricultural development issues.

- o AID's support, especially during the 1950's and 1960's, for decentralized extension services centered around agricultural universities may have been dismissed prematurely. Recent Impact Evaluations of Agricultural Higher Education, suggest that AID's support often played a key role in developing agricultural universities that have the potential to provide important technology development and transfer services.
- o The World Bank's Training and Visit System has proven effective in improving the delivery of extension services in some settings. The T&V approach has yet to prove itself in other settings, particularly in Africa and Latin America. T&V's emphasis on centralized, national extension bureaucracies is also seems inconsistent with AID's own development philosophy and may be particularly ineffective in countries where local agro-ecological conditions are heterogeneous. In any case, the T&V approach remains beyond the financial means of most host countries.
- o Few extension projects have focused on farmer organizations and farmer self-help as important extension components, despite AID's experience with local participation and the historical involvement of farmers' groups in extension in the United States.

- o The Agricultural Technology Management Working Group and the INTERPAKS project both emphasize that extension is only one constraint to agricultural development and that the impact of extension improvements depends on other elements in a larger agricultural technology transfer system. They conclude that extension initiatives should be implemented as part of a wider agricultural development strategy that takes these constraints into account.

- o Current project papers indicate that a number of the innovative extension approaches are being implemented, but documentary evidence remains sparse. Limited field studies of selected extension projects could provide useful information on the successes and failures of these approaches as a basis for mission guidance.

APPENDIX ONE

**PROJECTS TO CONSIDER
FOR FUTURE EVALUATIONS**

1. Project Number: 6640312 Country: Tunisia

Title: CTRD Rural Extension and Outreach

The purpose of this project is to establish a communications system between farmers, extension agents and researchers in Central Tunisia. The project is part of a larger project which was scheduled to last for 7 years, from 1979-1986.

2. Project Number: 5380099 Country: Other West Indies-Eastern
~~European~~ Regional

Title: Farming Systems R & D

BEST AVAILABLE DOCUMENT

This project is a follow-on to project number 5380015. The purpose of this project is to "develop an effective and sustainable Farming Systems Research and Development Program in the Caribbean Agricultural Research and Development Institute (CARDI) that responds to the agricultural needs of participating countries." CARDI will also work with Public and private extension organizations, especially thge Caribbean Agricultural Extension (CAEP) and participating Ministries of Agriculture to develop a joint and systematic approach to transfer improves technologies throughout the region via the FSR method. The time period

for this project if from 1983-1988.

**3. Project Number: 5980581 (Subproject 01) Country: Latin
American Regional**

Title: Rural Communication Services

The implementing agencies for this project are ENTEL-Peru (EP), a Peruvian Telecommunication corporation and the University of West Indies. The purpose of the project is to use satellite communications to disseminate information to rural people on agriculture, nutrition and educational topics. The time period for this project is from 1979-1986.

4. Project Number: 6690134 Country: Liberia

Title: Rural Information Systems

This mass communications project is using radio communication to reach rural individuals. According to the summary and abstract, this project also is emphasizing agricultural topics. The time frame for this project is from 1980-1987.

**5. Project Number: 5380101 Country: Other West Indies
Eastern Caribbean Regional**

Title: St. Vincent Agricultural Development

This project is being implemented by the Ministry of Trade from St. Vincent, CARDI, and a PVO, the Organization for Rural Development. The project is using a farming systems approach to identify economically optimum levels of fertilization and other cultural practices. The research results will be disseminated to farmers in St. Vincent. The project began in 1984 and is scheduled for completion in 1986.

6. Project Number: 6110204 Country: Zambia

Title: Chama Rice Production

This project is being implemented by a PVO, Africare. The purpose of the project is to increase rice production in the Chama district of Zambia. According to the project abstract, " a rice-specific extension staff consisting of an agricultural assistant and commodity demonstrator will instruct each area's farmers in planting and weeding rice in rows and the use of simple hand planting and weeding machines." This project began in 1981 and was scheduled for completion in 1984. According to the DIS system however, the only document available for this project is an Operational Program Grant (OPG) paper.

7. Project Number: 4930326 Country: Thailand

Title: Seed Development II

This project is a follow-on to project number: 4930270. The purpose of this project is to support seed promotion and marketing and private sector seed efforts. The project also involves training of extension agents. The time frame for this project is from 1982-1987.

8. Project Number: 6210156 Country: Tanzania

Title: Farming Systems Research

The purpose of this project is to increase food production in Tanzania by introducing an adaptive farming systems research system. The project is also involved in strengthening the link between research and extension. According to the project's abstract, "to make food crop research more relevant, expatriate research teams will establish operational FSR programs in the three major ecological areas of Uruiguru, Lyamungu and Ifonga, comprising 15 of Tanzania's 82 districts. The teams will conduct functional farmer surveys in 60 villages, adapting a methodology developed at the International Maize and Wheat Improvement Center; conduct FSR trials for major crops in villages representing 54,000 farmers; and develop with the help of 20 project-trained FSR officers, 13-17 technology packages and extend them to 18,000 farmers." This project began in 1982 and is scheduled to be completed in 1986. According to the DI system, however, the only document available for this project to date is the Project Paper.

8. Project Number: 9311144 Country: LDC Farmers

Title: Farmer to Farmer Program

This project was the only project of its kind represented on the DI system. The project which ran from 1978-1979 was to recruit and train LDC farmers at U.S. universities. The only document available for this project (A Miscellaneous Project Document) did not have sufficient information in order to evaluate this project. It might be worthwhile to attempt to contact individuals who were involved with this project.

9. Project Number: 5220209 Country: Honduras

Title: Small Farmer Livestock Improvement

This project involves establishing a joint public-private company, the Fundo Ganadero of Honduras (patterned after projects in Ecuador, Colombia and Bolivia) to provide farmers with training, technical assistance and credit. The project began in 1983 and is scheduled to be completed in 1990.

10. Project Number: 6980388 (Subproject 06) Africa Regional

Title: WTD-TRNG Farmer Women for Agr Pro-Chad

This project which began in 1976 and was to be completed in 1984,
was to establish special training centers in agriculture for women in Chad.
The only documents available on the DI system for this project are a
Sector Assessment and a Bibliography.

APPENDIX TWO
CATEGORIZATION OF 1065
AID EXTENSION PROJECTS

EXTENSION PROJECTS

Page 1

PROJECT ID	COUNTRY	PROJECT NAME	COST (M US\$)	SCOPE	IMPLEMENTING ENT.
2630027	Egypt	Rice research	\$ 23.757	National	Government
2630064	Egypt	Aquaculture Development	\$ 27.500	National	Government
2630070	Egypt	Major Cereals	\$ 47.000	National	Government
2630090	Egypt	Small Scale Ag. Activities	\$ 1.700	National	Government
2760241	Jordan	Jordan Valley Ag. Services	\$ 8.820	National	Government
2790070	Yemen	Poultry Development	\$ 1.920	National	Government
2790080	Yemen	Sorghum and Millet Crop Dev.	\$ 1.300	National	Government
2790092	Yemen	Ag. Development Support	\$ 41.330	National	Government
3080163	Afghanistan	Integrated Wheat Development	\$ 4.370	National	Government
3070102	Nepal	Institute of Ag. and Animal Sci.	\$ 3.494	Institute	Institute
3070102	Nepal	Institute of Ag. and Animal Science	\$ 3.494	Institute	Institute
3070114	Nepal	Integrated Cereals	\$ 8.230	National	Government
3070132	Nepal	Resource Census and Util. (Sub)	\$ 27.490	National	Government
3070132	Nepal	Resource Cons. and Utilization	\$ 27.490	National	Govt/Univ
3070140	Nepal	Institute of Agriculture II	\$ 1.500	University	Univ/Institute
3030049	Sri Lanka	Agricultural Educ. Development	\$ 14.000	National	Govt/Univ
3000475	India	Madhya Pradesh Social Forestry	\$ 28.070	National	Government
3000498	India	Rishabhara Social Forestry	\$ 47.000	National	Government
3000481	India	Rishabhara Integ. Fore. and Mgmt	\$ 73.900	National	Government
3000051	Bangladesh	Agricultural Research Phase II	\$ 890	National	Govt/Univ
3910463	Pakistan	Dry Land Ag. Development I	\$ 27.500	National	Government
3910413	Pakistan	On-Farm Water Management II	\$ 38.000	National	Government
3910405	Pakistan	Sedon-Amaral Area Development	\$ 28.900	National	Govt/Univ
3910405	Pakistan	Tree and Integ. of Ag. Materials	\$ 38.000	National	Government
4020005	Burma	Wheat and Oilseed Production	\$ 805	National	Government
4920265	Philippines	Aquaculture Production	\$ 5.000	National	Government
4920265	Philippines	Pest Control	\$ 12.000	National	Govt/Univ
4920262	Philippines	Integrated Ag. Prod. and Marketing	\$ 3.000	National	Government
4920310	Philippines	Global Integrated Development II	\$ 1.700	National	Government
4920322	Philippines	Fresh Fisheries Development	\$ 2.500	University	University
4920331	Philippines	Agricultural Ext. Outreach	\$ 3.000	National	Government
4920350	Philippines	Farming Systems Development	\$ 3.000	National	Government
4930269	Thailand	Thailand Ag. Development	\$ 4.000	National	Government
4930272	Thailand	Low Non On-Farm Development (Sub)	\$ 3.000	National	Government
4930260	Thailand	Ag. Extension Outreach	\$ 4.200	National	Government
4930269	Thailand	Land Settlements	\$ 7.300	National	Government
4930274	Thailand	Highland Area Development	\$ 500	National	Government
4930295	Thailand	Non-Formal Vocational Edu.			

EXTENSION PRACTICES

INPUTS	OUTPUTS	TERMINATION DATE
training farmers and extension agents	Tech. training/ Demos on farm	Support
training fishermen / extension agents	Technical training and demonstrations	New organization
improved R/E	Strength ext. service pilot ext. prog.	Support and new program
training farmers/ profes/ ext. agents	Formal educ. training on farm demos	New extension program
training farmers / ext. agents	Demos on farm mass-media/ tech training	Support and new centers
training farmers, ext. agents R/E links	Demos/tech training	New centers
improved R/E/ training professionals	Technical assistance	
training farmers/ profes/ ext. agents	Demos/ technical training	
training farmers/ ext. agents R/E	Demos on farm/tech training	
education and training professionals	Formal education	
educ and training profs / ext. agents	Educ and tech training	
training farmers/profes/ext. agents	Demos on farm/tech training	
training extension agents/PM	Tech training	
educ and training ext. agents/ UNO	Tech training	
training professionals/ ext. agents	Formal educ/ tech training	
training professionals	Formal educ and tech. training	
training villagers/ profes/ ext. agents	Training/ educ/ inputs (e.g. trees)	
ext. of R/E unit, training villagers	Tech eval. and training	
training farmers	US	
training farmers/ ext. agents	Demos on farm, PB/ Tech training	
training farmers / ext. agents	Demos/tech training/R/E links	
training farmers	Demos on farm mass media	
training farmers/ext. agents	Demos on farm/tech training	
training ext. agents	Tech training, new center for training	
training farmers/ profes/ ext. agents	Demos, tech training (transd. g. test)	
training ext. agents	Tech training, literature, R/E links	
training farmers/ ext. agents R/E	Demos, mass media/tech training	
training farmers		
training farmers/ ext. agents	Demos/tech training-PB	
training fishermen/ext. agents/	Demos/tech training	
training professionals	Formal education	
training farmers	Printing systems	
training professionals, ext. agents		
training farmers	Demos, model farms, PB	
training farmers/ ext. agents R/E links	Local farmer-demos/ info for ts/ dist. info	
training farmers/ ext. agents	PB/ Tech training	
training ext. agents R/E links	Technical training	

BEST AVAILABLE DOCUMENT

PROJECT NO	COUNTRY	PROJECT NAME	COST (X 000)	SCOPE	DISSEMINATION (Y/N)
4930308	Netherlands	NE Reinfed Ag Development	0 12,000	National	Government
4930326	Netherlands	Seed Development II	0 8,200	National	Government
4930332	Netherlands	Rhon Ecom Univ. Research Devel	0 2,000	National	Government
4930336	Indonesia	Assistance to Ag-Fisheries Dev.	0 417	National	Government
4930383	Indonesia	Sumatra Agricultural Research	0 8,800	National	Government
4930388	Indonesia	Science and Tech. Res. Assiat. Iv.	0 8,000	National	Govt/Univ
4930375	Indonesia	Professional Resources Devs. II	0 1,000	National	Government
4930381	Indonesia	Citanduy II	0 27,000	National	Government
4930381	Indonesia	Citanduy II (Sub)	0 27,000	National	Government
4930388	Indonesia	Small Scale Fisheries Develop.	0 2,000	National	Government
4930393	Indonesia	Eastern Islands Ag Edu Little III	0 8,800	University	University
4930384	Indonesia	Secondary Food Crops Development	0 8,400	National	Government
4930384	Indonesia	Upland Ag and Conservation Proje	0 16,549	National	Government
4930311	Asia Regional	ARPAI Commu. in Development	0 700	Regional	FAO
4930254	Asia Regional	Ag Development Council II	0 444	Regional	FVO
4930257	Asia Regional	Ag Development Council II	0 444	Regional	FVO
4930287	Asia Regional	So. Pacific Isl. Ag Devel. (Sub)	0 1,000	National	University
4930287	Asia Regional	So. Pacific Isl. Ag Devel. (Sub)	0 1,000	National	University
4930287	Asia Regional	So. Pacific Island Ag Devel.	0 1,000	University	University
4930287	Asia Regional	So. Pacific Island Ag. Devel. (Sub)	0 1,000	University	University
5040875	Guinea	Small Farm Dev. Black Bush Region	0 8,900	National	Government
5050006	Bolivia	Livestock Development	0 1,420	National	Government
5110053	Bolivia	Ag Development Sector I	0 8,200	National	Government
5110151	Bolivia	Basic Food Prod and Marketing	0 8,900	National	Government
5110243	Bolivia	Chapas Regional Development	0 28,000	National	Institute/publ
5130314	Chile	School Family Garden Coop (CPS)	0 150	National	FVO
5140281	Colombia	Rural Develop. CPS (CPS)	0 879	National	FVO
5140226	Colombia	Ag. Training Program CPS-FVO	0 250	National	FVO
5150139	Costa Rica	Science and Technology	0 4,000	National	Government
5170110	Dominican Rep.	Agriculture	0 11,699	National	Government
5170110	Dominican Rep.	Agriculture Sector Lead II	0 15,000	National	Government
5170120	Dominican Rep.	Water Resource Project (Sub)	0 11,200	National	Government
5170199	Dominican Rep.	On Farm Water Management	0 12,000	National	Government
5170162	Dominican Rep.	Inland Fisheries II	0 270	National	Government
5170160	Dominican Rep.	Ag. Research and Extension	0 0	National	Government
5180012	Ecuador	Integrated Rural Development	0 3,754	National	Government
5180032	El Salvador	Rural Tech. Transfer System (Sub)	0 11,300	National	Government

ACTIVITIES	ACTIVITIES	CONTRIBUTIONS (Y/N)
training farmers/ ext agents	farmers/ tech training	Support
training farmers/ profes/ ext agents	Demos, mass media/R/E/ tech equip on	Support
training farmers	Training systems	Support
training fishermen/ ext agents	Training systems	Support
training professionals	Demos/ tech training	Support
training ext. agents	Education	Support
training professionals	Educ. Tech. training. Dissemination of info	Support
training farmers/ ext agents	Education	Support
training farmers/ ext agents	Demos/ Education	Support
train ext. agents/ ext of ext service	tech training	Support
training professionals	tech training/ new programs	Support
training farmers	Formal Education	Support
training farmers	Demos	Support
Education and training of farmers	Pilot FS program	Support
Educ and training profes/ ext agents	Mass communications	Support
Educ and training profes/ ext agents	Formal education/ technical training	Support
training profes/ ext agents/ top R/E	Educ. training R/E links	Support
Improved R/E	Technical training/ Dissemination of info	Support
Educ and training professionals / R/E	Formal education	Support
Educ and training profes / ext agents	Educ. training R/E links	Support
training ext agents	tech training/ Dissemination of info	Support
training farmers	training and tech assist.	Support
training profes/R/E links	Education	Support
Educ and training farmers/profes	Education, training literature	Support
training farmers/R/E links	Demos, pilot. on involvement	Support
training rural students/farmers	Education/ demos	Support
training farmers/ ext. agents	training tech assist.	Support
training young farmers for extension	training tech assistance	Support
Ext. R/E links/ Dissemination of info	Formal, educ. literature	Support
training farmers	mass-media, pr. sector	Support
training ext agents		Support
training farmers		Support
training farmers/ profes/ ext agents	Demos, literature, formal forms, tech assist	Support
strengthening ext. service	training, comm/tech assist Educ/training	Support
training farmers/R/E links		Support
training farmers, ext. agents	On farm demos	Support
training farmers/profes/R/E links	mass media/tech assist. info	Support
	training/ Dissemination of info	Support

PROJECT NO	COUNTRY	PROJECT NAME	COST (x 000)	SCOPE	IMPLEMENTING ORG.	ACTIVITY	STATUS	TECHNOLOGICAL INNOVATION
8190174	El Salvador	Intensive Small Farm Management	0	1,101 National	Government	training farmers/ ext agents		
8190164	El Salvador	Small Farm Irrigation Systems	0	8,109 National	Government	training farmers/ ext agents		
8190217	El Salvador	Small Farm Natural Pest. Mgmt.	0	180 National	Government	training farmers/ ext agents		
8190259	El Salvador	Agrarian Reform Support Tech. Asst.	0	8,000 National	Government	training farmers/ ext agents		
8190262	El Salvador	Agrarian Reform Org. (Sub)	0	22,113 National	Government	training prof./ext. agents		
8190265	El Salvador	Agrarian Reform Sector Support	0	34,935 National	Government	training farmers/professionals		
8200255	Guatemala	Small Farm Diversification Sys.	0	8,100 National	Government	training farmers/prof/ ext. agents		
8200274	Guatemala	Training School for Promoters	0	232 National	Government	training ext. agents/R/E links		Support
8200290	Guatemala	Highlands Ag. Development	0	12,000 National	Government	training ext. agents		Support
8200293	Guatemala	Small Fish Pond Development	0	343 National	Government	training farmers		
8210070	Haiti	Small Farm Develop. Proj. (Comm op)	0	8,110 National	Government	training farmers/ ext. agents		
8210078	Haiti	Integrated Ag. Development	0	18,995 National	Government	Dev. of ext. activities		
8210122	Haiti	Agroforestry Outreach	0	11,500 National	Government	training ext. agents/Dr. ext. comm/R/E		
8210173	Haiti	Coffee Technology Transfer	0	0 National	Government	training farmers/ ext. agents/ R/E links		Support
8210175	Haiti	Radio Ag. Extension Programming	0	0 National	Government	training farmers, Comm specific		
8210182	Haiti	Seed Multiplication and Ext.	0	0 National	Government	Ext. and to farmers		
8220120	Honduras	Non-Governmental Org. Support II	0	0 National	Government	training professionals of seeds/R/E links		Support
8220123	Honduras	Agro-Industrial Export Devel.	0	0 National	Government	training ext. agents		
8220139	Honduras	Small Farmers Technologies	0	1,700 National	Government	Support for agricultural		
8220150	Honduras	Agricultural Research	0	2,042 National	Government	training farmers, ext. agents		
8220150	Honduras	Agriculture Sector II (Sub)	0	28,030 National	Government	training farmers/ ext. agents/ R/E links		
8220178	Honduras	Ag. Sector II Program	0	29,000 National	Government	training professionals, DR		Support, New centers
8220299	Honduras	Small Farmer Coffee Imp. (Comm op.)	0	9,350 National	Government	training professionals		
8240145	Nicaragua	Small Farmer Livestock Improv.	0	13,000 National	Government	training farmers and ext. agents		Support
8240205	Nicaragua	Radio Ext. Eastern Nicaragua	0	130 National	Government	training farmers		Support
8250173	Panama	Appropriate Ag. Technology	0	300 National	Government	training villagers and farmers		
8250183	Panama	Agriculture	0	8,100 National	Government	Develop ext. centers, training villagers		Support
8250245	Panama	Training of Rural Youth (TRY)	0	223 National	Government	Develop ext. centers		New centers
8250277	Panama	Managed Fish Production	0	1,192 National	Government	training youth in farming		Support, New centers
8260183	Paraguay	Ag. Technology Transfer	0	7,900 National	Government	training profs.		Support
8260185	Paraguay	Small Farmer Livestock Prod.	0	337 National	Government	training trainers/ext. agents		Support
8260189	Paraguay	Form Plant Service Small Farms	0	482 National	Government	training farmers/ext. agents		Support
8260190	Paraguay	Small Farm Technology	0	6,900 National	Government	training farmers/prof/ ext. agents/R/E		
8270143	Peru	Highlands Crop Intensification	0	2,236 National	Government	training farmers/profs		
8270149	Peru	Comprehensive Para-Technician Training	0	190 National	Government	training farmers		Support
8270183	Peru	Soy and Corn Prod on Small Farms	0	2,302 National	Government	training farmers / ext. agents		
8270190	Peru	Devel. of Sub-Tropical Livest.	0	18,800 National	Government	training farmers		
8270190	Peru	On Farm Water Management	0	490 National	Government	improving extension service		Support
						training farmers		Support

PROJECT ID	COUNTRY	PROJECT NAME	COST (K USD)	SCORE	IMPLEMENTING AGENCY	INTERVENTIONS	ACTIVITIES	TECHNOLOGICAL LEVEL
8270182	Peru	Ag Research, Ext. and Educ.	0	14,100	National	Government	Training farmers/ext agents/R/E links	
8270244	Peru	Upper Huallaga Ag. Develop.	0	15,750	National	Government	Training farmers, ext. agents	
8270009	Jamaica	Rural Educ Sector Loan (Sub)	0	4,850	National	Government	Training farmers, ext. agents	
8320078	Jamaica	Rural Educ Sector Loan (Sub)	0	11,200	National	Government	Training professionals	
8320045	Jamaica	Int'l Fish Prod Development (Sub)	0	453	National	Government	Training fishermen/profs	
8320046	Jamaica	Rural Comm. Nutr.-Income Improv.	0	154	National	Government	Training farmers	
8320050	Jamaica	Integrated Regional Rural Dev.	0	18,000	National	Government	Training farmers/ext agents	
8300017	Regional	Fish Prod System Development	0	4,187	National	Government	Training fishermen/ext agents	
8300045	Regional	Caribbean Ag. Extension	0	8,900	Regional	University	Training professionals/UM	
8300050	Regional	Caribbean Development Facility III	0	10,000	Regional	Government	Training farmers	
8300077	Regional	Agricultural Extension II	0	8,920	Regional	Government	Training profs/ext agents	
8300181	Regional	Feeding Systems R & D	0	2,740	Regional	Institute	Training profs/ext agents	
8300093	Regional	St. Vincent Ag. Development	0	2,800	Regional	Institute/FAO	Training farmers/R/E links	
8300093	Regional	Regional Rural Agribusiness Dev.	0	18,000	Regional	Gov. Agribusiness	Training ext. agents	
8300090	Regional	Small Farm Production System	0	8,000	Regional	Institute	Training professionals	
8300110	Regional	Regional Coffee Pest Control	0	2,500	Regional	Institute	Training professionals	
8300174	Regional	Integrated Pest Management	0	8,750	Regional	Institute	Training women in ag	
8300175	Regional	LAO Regional Educ. Media for Women	0	645	Regional	Int'l Group	Training ext. agents/R/E links	
8300058	Regional	Ag. Dev. in Latin America	0	183	Regional	FAO	Education of farmers/Instruct	
8300054	Regional	Rural Comm. Services (Sub)	0	2,039	Regional	Gov. Agribusiness	Training farmers/profs	
8300003	Regional	Mod. of Vertebrate Pest Crop Loss	0	1,050	Regional	FAO	Training fishermen/UM for extension	
8300003	Regional	Fisheries Development Phase II	0	2,211	National	Government	Training fishermen	
8300122	Regional	Fisheries Development Phase II	0	2,900	National	Government	Education and training of professionals	
8300135	Regional	Ag. Research and Training	0	450	University	Institute	Training extension agents	
8300145	Regional	Extended Agricultural Development	0	26,900	National	Government	Training farmers/ext. agents	
8300135	Regional	Rural Management Improvement	0	8,815	National	Government	Training profs/farmers/ext. R/E links	
8300201	Zambia	Ag. Devel. Research/Ext.	0	1,187	National	Government	Training farmers	
8110204	Zambia	Chama Rice Prod.	0	804	National	FAO	Training bookkeepers, comm. specific	
8150172	Kenya	West. Province Small Farms Prod.	0	7,000	National	Government	Training profs/farmers	
8150180	Kenya	Ag. and Soil-Acid Lands Dev.	0	1,187	National	Government	Training farmers/ext. agents	
8150228	Kenya	On-Farm Grain Storage in Kenya	0	810	National	Government	Training villagers/profs	
8210135	Tanzania	Moore St. Enterprise Develop.	0	2,305	National	University	Training villagers/profs	
8210143	Tanzania	Ag. Educ. and Extension	0	21,454	National	Government	Training farmers/profs	
8210150	Tanzania	Arusha Plan and Village Dev. (Sub)	0	3,000	National	Government	Training farmers/profs	
8210160	Tanzania	Feeding Systems Research	0	490	National	Government	Training farmers/profs	
8210181	Tanzania	Village Environ. Educ. (Sub)	0	8,005	National	Government	Training farmers/profs	
8250020	Regional	Training for Rural Dev. II	0	45,000	Regional	Institute	Training farmers/profs	
		Regional Food Crop Protection	0					

EXTENSION PROGRAMS

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EXTENSION PROGRAMS

PROJECT NO	COUNTRY	PROJECT NAME	COST (\$ 000)	SCOPE	IMPLEMENTING ORG.	TYPE OF	APPROACH	ORGANIZATION LEVEL
625097	Upper Volta	Accelerated Impact Program	0	3,577 National	Government	training villagers/ext. agents/WHO	training, tech. assist.	Support
6310001	Cameroon	SI Cameroon Seed Multiplication Pr	0	1,499 National	Government	training farmers/ext. agents	tech. assist., literature/training	Support
6310004	Cameroon	Young Farm Family Tr Center CPO	0	957 National	PVO	training farm families	Education and training	New centers
6310015	Cameroon	North Cameroon Live & Ag Dev	0	5,437 National	Government	training farmers	tech. training, tech. assist.	Support
6310827	Cameroon	Small Farmer Live/Poultry Dev CPO	0	1,205 National	PVO	training profes/ distos of livestock	Education, training on-farm	Support
6310001	Cameroon	No. Cameroon Seed Multiplicat. II	0	17,070 National	Government	training profes/ext. agents	Education/training	Support
6320009	Lesotho	Agricultural Education	0	26,651 University	University	training professionals R/E birds	Education, demos at univ.	Support
6330059	Botswana	Farming Systems Research	0	12,189 National	Government	training profs in farming sys	training, distos of birds	Support
6330115	Botswana	Botswana Rural Harpover Develop.	0	155 National	PVO	training professionals		Support
6330115	Botswana	IRS Botswana Horticulture Dev. Proj	0	155 National	PVO	training professionals		Support
6350293	Gambia	Plowed Farming and Res. Pilot (Sub)	0	4,000 National	Government	training farmers/ext. agents	training and tech. assist.	
6350293	Gambia	Plowed Farm and Res. Pilot (Sub)	0	2,000 National	Government	training farmers	training, demos, tech. assist.	
6350293	Gambia	Plowed Farm and Res. Pilot (Sub)	0	2,000 National	Government	training farmers/ext. agents	demos, training	
6350293	Gambia	Plowed Farm and Res. Pilot (Sub)	0	98,000 National	Government	training profs	Education/tech. assist.	
6350215	Gambia	Technical Skills Training CPO CPOC	0	2,009 National	Government	training farmers in on-farm	training in animal medications	Support
6350182	Sierra Leone	Adaptive Crop Research and Ext.	0	705 National	Government	training profes/PVO	Education and training	Support
6410097	Ghana	Managed Input and Ag. Services	0	2,108 National	Govt/Univ	training profes/farmers/ext	Education and training	New centers
6410012	Ghana	Farmer Assoc and Agribusiness Dev.	0	3,000 National	Government	training farmers/ext. agents/WHO	Education and training	Support
6410182	Ghana	Farm Inputs & Dist of Ag Serv (Sub)	0	21,117 National	Government	training tech. assist.	training, demos/tech. assist.	Support
6450212	Swaziland	Swaziland Cropping Sys R Ext II	0	14,853 National	Government	training farmers/ext. agents/WHO	training, demos, PG	Support
6490181	Senegal	Ag. Extension, Training and Res.	0	8,657 National	Government	training ext. agents	Education and training	Support
6490112	Senegal	Agricultural Delivery Systems	0	18,752 National	Government	training farmers/ext. agents	demos, training	Support
6500010	Sudan	Sudan Ext. Edu. Tr. for Human Res.	0	305 National	PVO	training profes/ext. agents	training	New centers
6500010	Sudan	Blue Nile Ag. Development	0	12,032 National	Government	edu. for WHO analysis of ext. services	Education	Support
6500021	Sudan	Southern Harpover Development	0	8,640 National	Government	training farmers/ext. agents	training, demos, tech. assist.	Support
6500183	Sudan	South Region Ag Rehab. Devol	0	190 National	Government	training profes/ext. agents	tech. training in PS/tech. assist.	New centers
6510005	Doune Gissau	Small Scale Fisheries	0	600 National	Government	training ext. agents in communications	tech. and training	Support
6510009	Doune Gissau	Rice Production II	0	600 National	Government	training fishermen	demos	Support
6500859	Zaire	North Shaba Zaire Prod.	0	4,500 National	Government	training ext. agents/WHO	training	Support
6500017	Zaire	Zaire Outreach	0	22,125 National	Government	training farmers/ext. agents	training	Support
6500092	Zaire	Zaire Integrated Rural Dev PVO	0	4,800 National	Government	training ext. agents/R/E birds	Education and training/tech. assist.	Support
6500091	Zaire	Snake Integrated Rural Dev PVO	0	410 National	PVO	training farmers	training/WHO	Support
6500092	Zaire	Applied Ag. Research and Ext.	0	11,000 National	Government	training farmers/R/E birds	Education and training/tech. assist.	Support
6500092	Zaire	Food Crops Research	0	1,820 National	Government	training farmers/R/E birds	training/WHO	Support
6530002	Zimbabwe	ADA Ag. Development Project	0	2,176 National	Government	training farmers/R/E birds	training, demos/conference	Support
6530186	Zimbabwe	Pulse Diversification and Imp	0	1,400 National	Government	training farmers	Education and training	Support, New centers
6530110	Zimbabwe	Agricultural Sector Loan IV	0	15,000 National	Government	training ext. agents/R/E birds	training	Support, New centers
6530213	Zimbabwe	CPO Seed Education	0	7,205 National	Government	Dev. of ext. programs	Education, training literature	Support
6530213	Zimbabwe	White Regional Rural Development	0	724 National	PVO	Ed. in agriculture/WHO	training, training literature	Support
						training farmers	training and demos PG	

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PROJECT ID	COUNTRY	PROJECT NAME	COST (in 000)	SCOPE	IMPLEMENTING ORG	STRATEGY	ACTIVITIES	ORGANIZATION CODE
0540200	Tunisia	Livestock Feed Prod. Project	2.491	National	Government	Training farmers / extension agents	Tech training/Down and on farm edu.	
0540304	Tunisia	Ag Training and Tech Transfer	3.800	National	Government	Training professionals		
0540312	Tunisia	CARD Rural Ext and Outreach (Sub)	26.812	National	Government	New R/E System	Strength ext service, new centers, down	Support, new organization
0540318	Tunisia	SNAT Faculty Development	390	Institute	Institute	Education and training of professionals	Formal education, research ext links	Support
0550127	Uganda	Ag Cooperative development	1.400	National	Government	Training farmers/profs/ext	Training mass media/Education	Support
0550134	Uganda	Rural Information Systems	17.700	National	Government	Training farmers/professionals	Mass media/technical training	
0550135	Uganda	Ag Research and Extension	4.957	National	Government	Training prof/ext. agents/R/E links	Education, training, literature	New center
0550139	Uganda	Upper Song County ID	8.800	National	Government	Training ext. agents	Training ID	New system
0550142	Uganda	Upper Lofa Rural Development	8.000	National	Government	Training farmers/ext. agents	Training	New ext. service
0550153	Uganda	Rural Dev. Tr. Outfitting College	4.753	National	Church	Training farmers to be ext. agents	Education	
0550154	Uganda	Nakas Rural Technology	164	National	Government	Training farmers/ext. agents	Training in Agg. Tech	Support
0750281	Guinea	Guinea Ag. Prod and Training	14.400	National	University	Training prof/ext. agents	Education, training	Support
0750284	Cam Afr Rep	Fish Culture Extension	110	National	Government	Dev of ext. system		New system
0750295	Cam Afr Rep	Rural Development	1.000	National	Government	Training fishermen, ag/R/E links	Down (fish) training, tech ext (boas)	Support
0770202	Chad	Ag Institutional Dev and Ext (Sub)	5.433	National	Government	Training ext. agents	Education, training, tech ext.	Support
0770261	Chad	Chad Range & Liv. Herder Tr (Sub)	3.207	National	Government	Training villagers as ext. agents	Training	New system
0790281	Congo	Smallholder Ag Development	2.800	National	Government	Training farmers	Downs, discuss of info	
0820284	Mozambique	Vegetable Production	1.805	National	Government	Training prof/ext. agents	Education/training	
0820287	Mozambique	Integrated Devel. of Oases	8.991	National	Government	Training farmers	Training down	
0830285	Niger	Niger Dept. Rural Dev. (Sub)	4.950	National	Government	Training ext. agents	Training ID	
0830285	Niger	Cereals Research	10.800	National	Institute	Training prof/ ext. agents/R/E links	Educ/tech ext, training	Support
0850281	Senegal	Senegal Cereals Production	5.745	National	Government	Training ext. agents/R/E links	Training	Support
0850282	Senegal	Senegal Range and Livestock Dev.	5.025	National	Government	Training ext. agents	Training, tech ext.	
0850285	Senegal	Coastal Regional Development	32.804	National	Government	Ext. services, R/E linkages		Support
0850284	Senegal	SEESP Livestock Prod. Project	8.000	National	FAO	Training ext. agents	Training and tech ext.	
0850285	Senegal	Senegal Cereals Prod. Project	7.700	National	Government	Training farmers and ext. agents, ID	Educ, training, down, FSR	Support
0850281	Upper Volta	Eastern ORD Non-Farmal Edu.	4.810	National	Government	Ext. ext. agents	Preparation of edu. materials for ext.	Support
0850282	Upper Volta	Upper Volta Seed Multiplication	1.535	National	Government	Training prof/ext.	Tech ext and training	
0850217	Upper Volta	Orino Area Village Dev. Fund	2.113	National	Government	Training farmers/ext. ag. disse of info	Training edu, tech ext.	Support
0850221	Upper Volta	Ag Human Resources Dev.	9.993	National	Government	Training prof/ext agents	Education and training	New centers/Support
0850231	Upper Volta	Southern Ind. Rural Dev. (Sub)	5.958	National	FAO	Training farmers, villagers	Training and down.	Support
0850244	Upper Volta	Eastern Region Food Prod.	3.000	National	Government/FAO/ADAPT	Training prof/ext. agents	Education and training	
0850245	Upper Volta	Foundation Seed Production	1.900	National	Government	Training farmers/ext. agents	Training down/tech.	Support
0850123	Phil	Action R/E	2.005	National	Government	Training farmers	Training down	Ext serv est.
0850202	Phil	Phil Crop Production	12.309	National	Government	Training farmers/WO	Training	
0850207	Phil	Phil Livestock Sector Grant	17.085	National	Government	Training farmers		
0850210	Phil	Operation Haute Valley (Sub)	10.353	National	Government	Training farmers/prof/ext agents	Training tech ext/Education	Support
0850218	Phil	Livestock Sector II	13.845	National	Government	Training farmers/ext agents/training tec		Support

PROJECT ID	COUNTRY	PROJECT NAME	CUS? (N ORS)	SCOPE	IMPLEMENTING ORG.	SYNOPSIS	ACTIVITIES	ORGANIZATION LEVEL
080219	Kenia	Semi-Arid Tropics Res. SCRI/NAI	0	550 National	Institute	training ext. agents/R/E links	training literature	
080220	Kenia	Hill-San Pilot Fisheries Prod.	0	321 National	FVO	training fishermen/ext. agents	training demos.	
080226	Kenia	Semi-Arid Tropics Crop Res. II	0	4,710 National	Institute	training professional/R/E links	education	
080233	Kenia	White Valley Area Development	0	0 National	Government	Support of ext. service		
080237	Kenia	OCI Ag. Training Production	0	1,000 National	FVO	Classes of info		
080246	Kenia	Open Animal Production	0	3,130 National	Government	training farmers	training demos	How system Support
080281	Kenia	Basic Food Crops	0	8,815 National	Government	training prof/ext. agents	Education, training	Support
080288	Kenia	Small Farming Systems Research	0	7,790 National	Government	training prof/ext. agents in farm	Education and training	
080287	Kenia	Local Crop Storage	0	2,873 National	Government	training prof/ext. agents	training demos	
080299	Kenia	Agricultural Education (Sub)	0	8,126 National	Government	training women in ag. science for ext.	Education	
080312	Kenia	Fish Culture	0	2,450 National	Government	training prof/ext. agents	tech. ext./training	How ext. agent
080308	Kenia	WID-1: Farmer Union for Ag. Pr.	0	7,110 National	Government	training women in ag. prod.	Education and training	
080347	Kenia	Improved Rural Technology	0	8,100 National	Government	training villagers/farmers	training and demos.	Support
080348	Kenia	Improved Rural Technology (Sub)	0	8,100 National	Government	training villagers in fish prod.	training literature	
080349	Kenia	Accelerated Impact Program	0	18,221 National	Government	training villagers/ext. agents	training	
080340	Kenia	Accelerated Impact Program	0	18,221 National	Government	training farmers/dists. draft animals	demos, training	
080326	Kenia	West Africa Rice Development	0	8,770 National	Institute	training ext. agents/R/E links	Education and training	
080344	Kenia	Farming Systems Research CBTRF	0	1,213 National	Institute	training prof/ext. agents	training in FSR	
080341	Kenia	WATER-formation FVO	0	700 National	Institute	training farmers/ext. agents	Correspondence courses, some direct te	
080342	Kenia	Fisheries Training Center	0	200 National	University	training profs/own operators	tech training demos.	Support
080305	Kenia	Cont. Weed Control Irrigation	0	3,732 National	University	training professionals, R/E links		
080308	Kenia	Farming System and Methodology	0	1,200 National	US Institutions	training professionals	Education literature, R/E links	
080321	Kenia	Commercial Seed Industry Promotion	0	845 National	FVO	training professionals	Education, training, DC private co. links	
080344	Kenia	Farmer to Farmer Program	0	1,300 National	Univ/ABD	training farmer-leaders		
080340	Kenia	Livestock Production Capability	0	855 National	USAID/ABD	training professionals/R/E links	technical training, dissemination of info	Support
080329	Kenia	Soil Management Support Service	0	7,257 National	USAID	Ext. and training of professionals	Education, dissemination of info.	
080330	Kenia	Agribusiness Development and Supp.	0	754 National	USAID/ABD	Dev. of agribusiness	dissemination of information	
080341	Kenia	Int'l Voluntary Services (AVS)	0	1,725 National	FVO	training profs/ext. agents		
080301	Kenia	Development and Program Grant-ADP	0	970 National	FVO	training farmers	tech training, mass-media, ext.	Support
080309	Kenia	WATER Project, International	0	721 National	FVO	training farmers	tech training, dissemination of livestock ext. pr	Support
080315	Kenia	Agribusiness Dev. WDA FVO	0	36 National	FVO	training farmers/ext. agents		
080309	Kenia	Integrated Sys. for Small Farmers	0	8,853 National	ABD	training profs in FSR methodology	Education literature	Support
080320	Kenia	Pre-Post Harv. Dist. Prod. Ctr. (Sub)	0	12,805 National	FVO?	training farmers, professionals	demos, dissemination of info, tech training	Support
080330	Kenia	Forest Resources Management	0	72,171 National	USAID/ABD/Peace Corps	training villagers	technical assistance, dissemination of info.	Support
080311	Kenia	Rural Satellite Prog. -Dev. Camp.	0	8,800 National	Contractors	Ext. and training farmers/ext. agents	mass communications, tech training	Support
080314	Kenia	Save the Children Comm. Dev.	0	3,750 National	FVO	training professionals	tech assistance, training, dissemination of info	
080349	Kenia	Goodwill Industries of America	0	442 National	FVO	training handicapped for crop/livestock prod.	Ext. of training school	
080351	Kenia	Wilder Proj. Int'l Hatching Brand	0	900 National	Government	training fishermen/prof/ext. agents	demos, training/Ext./training	

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**A REVIEW OF
A.I.D.'S EXPERIENCE
IN AGRICULTURAL EXTENSION**

Margee M. Ensign Ph.D.

INTRODUCTION

In recent years there has been a great deal of criticism of traditional agricultural extension methods developed and supported through U.S. Agency for International Development (A.I.D.) funds and implemented in Third World countries. Some of the criticisms center around the inappropriateness of the methods and technology being extended; insufficient linkages between research and extension services in LDC's; insufficient and inappropriate training for extension agents; and a focus that has excluded women. As M. Peter McPherson, the Administrator of A.I.D recently stated:

In the face of harsh realities in developing countries, and based upon a better understanding of our own evolutionary experience, the initial AID emphasis on extension as a primary means of increasing agricultural production has been substantially modified. Recognizing that improved technology is simply not available in many cases, we have increased our support for research. There are now relatively few AID projects that focus exclusively on organized public extension efforts...We are (now) exploring several new approaches intended to test the effectiveness of technology transfer to Third World farmers.

("Opening Address" at Conference on the "The International Role of Extension: Future Directions" Michigan State University March 31, 1985)

As a result of these concerns and criticisms, the Agency for International Development has recently begun to institute a number of innovative approaches in the extension area. These innovative approaches include:

1) Strengthening public extension by

- a) linking research and extension;
- b) applying a Farming Systems approach;
- c) linking the private sector to public extension systems;
- d) direct farmer training;
- e) farmer -to -farmer exchanges
- f) developing human resources; and
- g) using PVO's as implementing agencies.

2) Using mass communications approaches such as:

- a) radio broadcasts;
- b) advertising and social marketing; and

c) print media

to reach rural agricultural producers,

3) **Drawing on modern information techniques** such as microcomputers; and

4) **Stimulating private sector** extension methods.

Most of these approaches were instituted in AID projects only very recently. In fact this study discovered that there are few projects using these innovative projects which had sufficient information available for an evaluation. Nevertheless, this study has attempted to clarify and categorize the types of projects AID has funded in agricultural extension in the past ten years and to review eight of the more innovative extension projects for which evaluation documents were available.

This study has not attempted an evaluation of the **impact** of innovative methods in agricultural extension. In order to conduct an impact evaluation, information on production levels and target groups would need to be gathered both before and after the implementation of the project. In addition, information about the social, economic and cultural consequences of extension projects would need to be assessed.

A recent World Bank publication on Agricultural Extension has pointed out why evaluations of extension projects should differ from analyses of other development projects:

The unique features of these extension projects, as opposed to a conventional project...are that a) (they are) designed for the delivery of human services and b) (they are) aimed at influencing the work behavior of millions of farmers. This means that behavioral and cultural (sometimes elusive) and sociological aspects should necessarily be given more weight than in the monitoring of other projects and that qualitative field methods, akin to the participation observation techniques of the social anthropologist should be used along with the conventional quantitative methods. (*A System for Monitoring and Evaluating Agricultural Extension Projects*. World Bank Staff Working Paper, December, 1977.)

This paper has a limited focus: It begins to answer some of the questions concerning the major approaches and methods that have been used in extension projects by the Agency for International Development. The eight case studies are a first attempt at evaluating the success or failure of the projects in meeting their intended goals, not at assessing the success or failure of innovative methods in general.

This study then has two major components: first, to examine and categorize all AID funded projects in agricultural extension for the past ten years; and secondly, to review and evaluate in-depth a number of innovative extension projects.

Part one of this document describes AID's experience in agricultural extension for the past ten years. Using the Development Information System (DIS) and the following keywords: agricultural extension, agricultural education, agricultural extension agents, and agricultural training, one thousand and sixty-five projects were identified, (See Appendix Two). The abstracts and summaries from these 1065 projects were examined to see if the extension component was a major or a minor part of the overall project. Three hundred and eighty-six of the one thousand sixty-five projects were selected for further analysis. After reading the documents pertaining to these projects, an additional one-hundred and twenty projects were removed from the analysis because the extension component was either too indirect (e.g. development of computer systems in the agricultural sector or satellite analysis) or because the projects were oriented mainly towards research.

A descriptive analysis was conducted in the remaining two-hundred and sixty-six projects. The purpose of this analysis was to determine broad characteristics of these projects such as: the scope of the project, the

implementing organization, the method of implementation and organizational development (i.e. relationship to extension service), and to chart AID's experience in agricultural extension for the past ten years.

A presentation of the descriptive statistics follows. Part two of this report contains an analysis and evaluation of eight case-studies of innovative projects in agricultural extension.

PART ONE

DESCRIPTIVE ANALYSIS

The first category of information gleaned from the abstracts and summaries involved the scope of the project (See Chart One). The scope of the project indicates whether the project was conducted within a country or had a regional orientation (labeled multinational). If the project was designed for all developing countries, then under the scope of the project the label is All LDC's. If the project was conducted entirely within a university then the project is labeled university.

As can be seen from the first chart, the majority of the projects 81.5%, were national in scope (implemented within a single country). 7.9% of the project had a regional focus, (labeled multinational) and 5.7% of the projects were geared towards all developing countries, (e.g. project number 9311144 listed in Appendix One). A small percentage, 3.3% of the projects, were undertaken solely with a university. Finally, another 1.1% of the projects were undertaken in an institutional setting (e.g. IRRI), and for .4% of the projects the scope could not be determined. (These last two categories do not appear on the pie chart.)

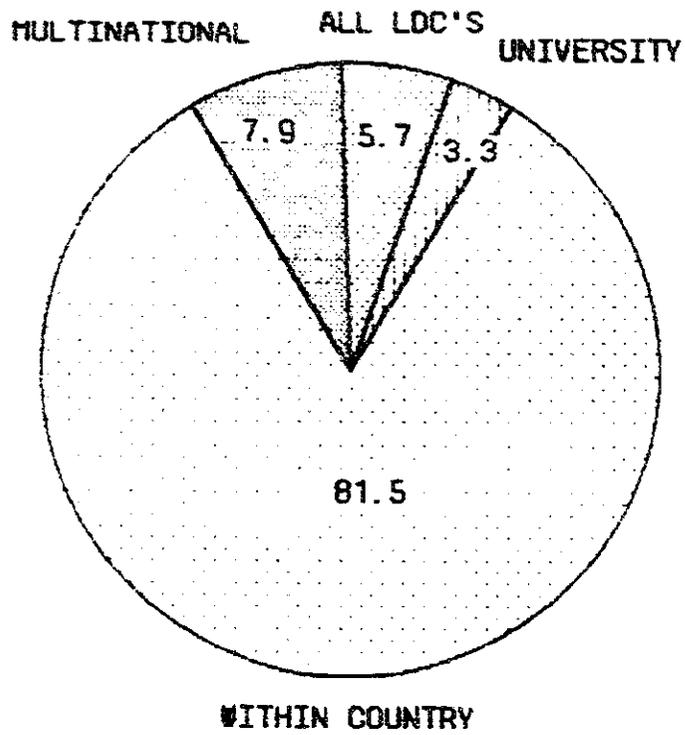


CHART ONE

The category implementing organization, (See Chart Two), indicates which entity or group was in charge of implementing the project. The largest category in chart two is the national category (64.2%), which includes all government organizations (e.g. ministries, departments). Private voluntary organizations (PVO's), were the second largest group within this category, implementing 13.5% of the projects under consideration. Universities and institute's were third and fourth respectively, implementing 7.0 and 5.6% of the projects. For a very small percentage of the projects (1.1%), the implementing organization could not be determined from the abstract or log-frame. It is clear from this chart that national governments, in many forms, are still the major groups involved in the implementation of AID extension projects. Whether there has been a change over time (e.g. towards PVO's as implementing agencies) cannot be determined from this analysis.

The third chart presents the major extension methods of project implementation. The percentages for charts three and four sum to more than 100% because a project can have more than one approach or method for meeting its intended goals.

As can be seen from this chart, for the projects under consideration, traditional approaches in agricultural extension predominate. For one hundred and forty nine of the projects, (56.0%) technical training for

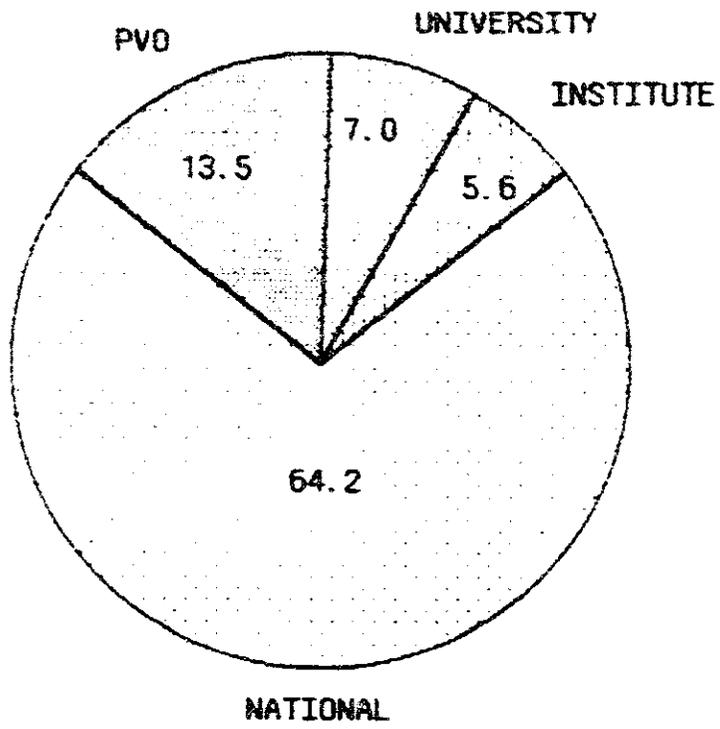


CHART TWO

AGRICULTURAL EXTENSION (%)

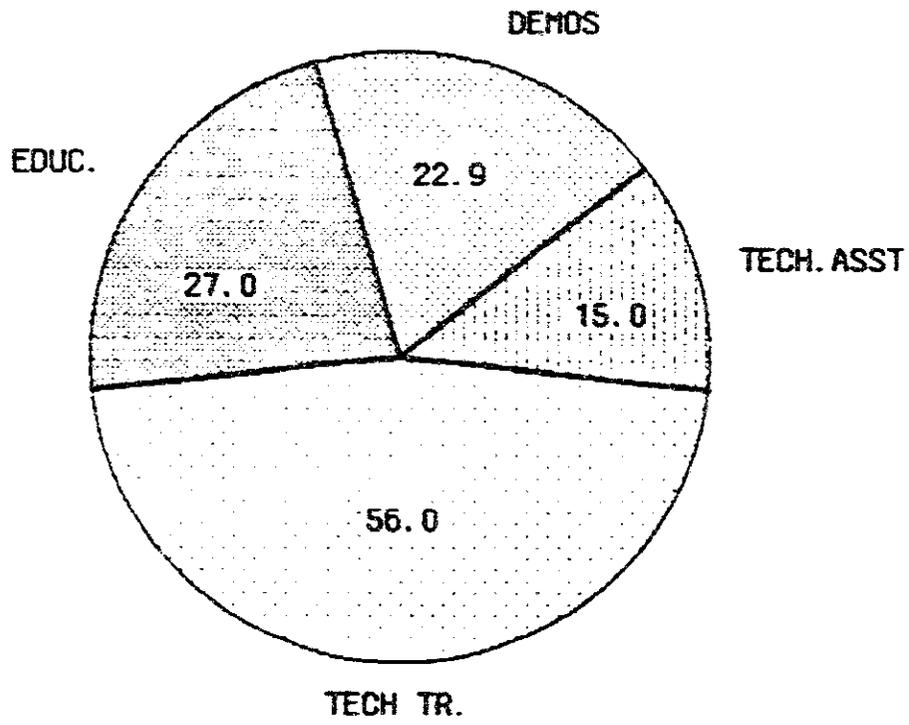


CHART THREE

extension agents and/or farmers was a major component. Formal education, primarily for extension agents and extension professionals was the second most important approach (27.0%). Demonstrations either at universities or institutes were the third most common approach (22.9%) while technical assistance was an approach used in 15% of the projects.

Chart four presents the innovative approaches used in the projects under consideration. The most important innovative method (14.2%) involved strengthening the research and extension links (R/E Links). Second in importance were projects which had a mass media component (7.5%). On-farm demonstrations were used in 5.2% of the projects under consideration and private companies were involved in nine of the projects (3.3%). These percentages indicate that innovative approaches have not become a major part of AID's extension package. **In all only sixty five of the two hundred and sixty six projects (24.4%) used any innovative approach in extension.**

Finally an analysis was made to determine whether a project provided organizational support to an existing extension service (33.4% of the projects had this component) or whether new extension centers, programs or services were a part of the project (16.5%).

In summary, it is clear from these charts that the more traditional approaches towards extension which involve for example, training,

INNOVATIVE METHODS IN
AGRICULTURAL EXTENSION (%)

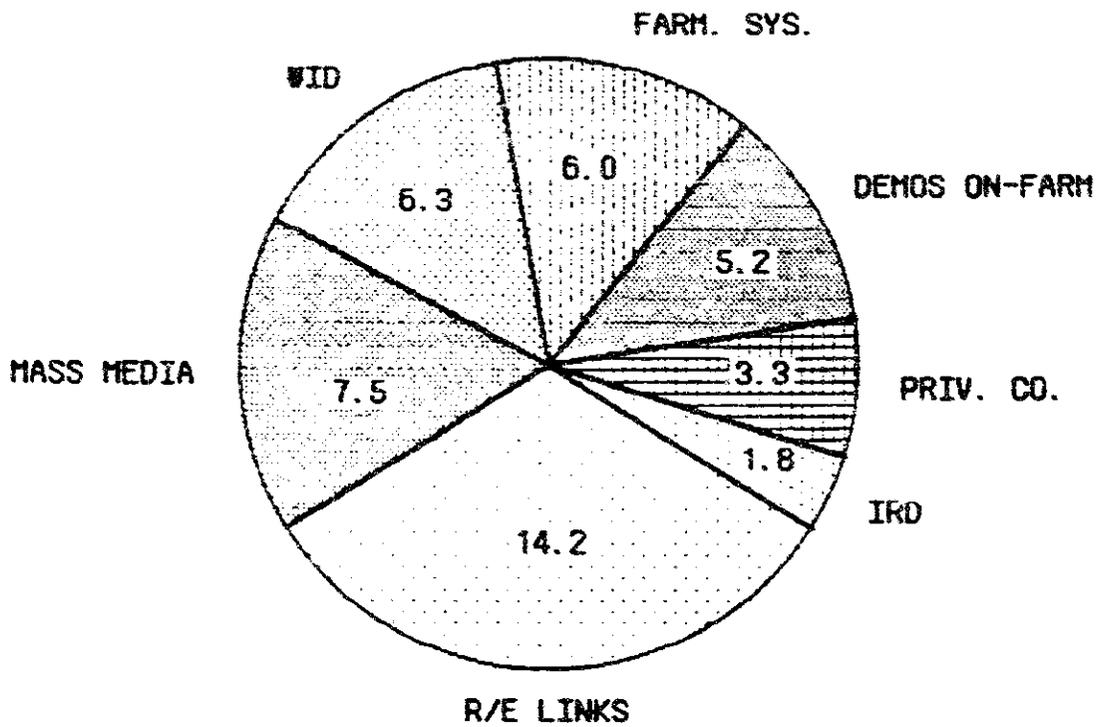


CHART FOUR

education and demonstrations, have been the dominant extension methods in A.I.D. financed projects during the past ten years. The second half of this study concentrates on examples of more innovative methods in order to get a clearer picture of these types of projects.

PART TWO

**CASE STUDIES OF
INNOVATIVE PROJECTS**

Based on the descriptive analysis, complete documentation for twenty-nine projects using some of the more innovative approaches were selected for evaluation and all available project documentation was ordered. After a thorough review of this documentation, only eight of the projects proved to have sufficient materials for conducting an in-depth assessment. Many of the more interesting projects using innovative extension are on-going and have not yet been sufficiently documented or evaluated. (Appendix One lists some of the on-going innovative projects that should be considered for evaluation when sufficient materials become available.) Since the sample projects using innovative methods is so small, the eight projects were evaluated individually. The individual projects were not considered to be representative of a general approach towards extension. Nevertheless, some specific conclusions regarding individual approaches and more general conclusions about these eight projects, were possible.

The projects were chosen because one or more of the methods used in implementing the extension component involved an innovative approach. Three of the projects had a mass media component; seven of the projects attempted to strengthen the link between research and extension; two of the projects focused on women in development, and one of the projects involved a private company in implementing the project, (See Table One below).

TABLE ONE

PROJECT CLASSIFICATION

METHOD PROJECT NUMBER(S)

MASS MEDIA

4930295 5980574 6850265

STRENGTHENING RESEARCH AND EXTENSION

2630064 5320059 5320046

6360102 6850235

WOMEN IN DEVELOPMENT

5980574 6850235

PRIVATE COMPANY

5220120

These approaches are considered to be innovative for a number of reasons.

For sometime it has been recognized that women perform much of the agricultural work in developing countries, yet they have often been bypassed by traditional extension projects. A.I.D. has attempted to remedy this by targeting projects (and components) of projects, towards women. Two of the projects reviewed below had components which attempted to involve women.

Another weak link in the extension process is the lack of communication between researchers and extension agents. As an A.I.D. paper recently indicated:

Most public extension systems lack adequate mechanisms to communicate, coordinate and cooperate with other important research and extension participants, including farmers... In most developing countries, research and extension are institutionally and organizationally separate, and are sometimes housed in different government ministries. Indeed, developing countries often have independent extension agencies for field crops, horticulture, livestock and even for individual commodities. (*Strengthening Public Extension Systems*, Draft Report, October 24, 1985).

Reaching large numbers of farmers by using mass media methods has recently become a method of extension pursued by A.I.D. Mass media can, "reduce the need for-and demands one-face to face inputs..Mass media can be used, in combination with other inputs, to introduce significant change over a relatively short period of time." (*Mass Media Communication for Extension.*, Draft Report, October 21, 1985). Three of the projects reviewed below had a mass media component.

Finally, involving the private sector in extension has become an important element in some A.I.D. extension projects. Private sector extension," can be an important supplement to public extension for certain groups of producers under certain conditions. Private firms become involved in extension because by helping farm families benefit, usually by increasing farm families' income or security, firms can benefit too, by earning profits or achieving other strategic objectives." (*Stimulating Private Sector Extension.* Draft Report, October 24, 1985). In only one of the projects reviewed below was the private sector involved.

In the innovative projects discussed below, the original goals and proposed methods of extension are presented. Then by drawing on all available documentation, these original objectives and methods are evaluated .

1. PROJECT NUMBER: 2630064 COUNTRY : EGYPT

TITLE: AQUACULTURE DEVELOPMENT TIME PERIOD 1978-1984

TOTAL LOP COST: 27,500,000

GOAL: TO INCREASE THE AVAILABILITY OF HIGH QUALITY PROTEIN FOODS IN EGYPT.

PURPOSE: TO PROVIDE THE CAPABILITY FOR SUSTAINED DEVELOPMENT OF THE FISH FARMING INDUSTRY ON AN ECONOMIC BASIS THROUGH IMPROVED INSTITUTIONS FOR PLANING AND COORDINATION, APPLIED RESEARCH, TRAINING AND EXTENSION AND TO INCREASE FISH PRODUCTION BY 4,000 TON PER YEAR BY 1986.

EXTENSION ASPECTS: STRENGTHENING PUBLIC EXTENSION BY LINKING RESEARCH AND EXTENSION IN AQUACULTURE AND BY BUILDING AN EXTENSION CAPCITY IN THE AQUACULTURE AREA, THROUGH TRAINING PROGRAMS.

This project had four main extension components:

- 1) to build a major extension center which would coordinate research and extension into aquaculture;

2) to support the establishment of a National Committee for Aquaculture Development by providing technical assistance;

3) to establish demonstration plots adjacent to the National Center to educate farmers about different techniques and to serve as a model for fish farm expansion;

4) to establish an additional 5,000 feddans of fish farms throughout the Sharkia-Ismalia area, and finally to establish both formal and informal training programs in aquaculture.

The production components of the project were summarized in the project paper.

The project will address the needs of increasing the availability of high quality protein by establishing the following:

1) A National Fish Farm Center at Abassa, Sharkia to conduct training and applied research and provide extension services to the aquaculture industry;

2) A 1,200 feddan production area adjacent to the Center

consisting of 80 15 feddan homesteads for recent agricultural graduates, supplying a minimum of 800 tons of marketable fish per year and serving as a model for fish farm expansion;

3) An additional 5,000 feddans of fish farms in the Sharkia-Ismalia area, including a minimum of 1,500 feddans of village fish ponds, supplying at least 3,000 tons/year;

4) two additional carp hatcheries, with a combined capacity of 18-30 million fry annually;

5) two additional mullet fry collection centers and a mullet hatchery.

The project also had a training component. Forty-five individuals were to receive long term training (degree and non-degree); and 140 person months were set aside for short and medium term training outside of the country. In addition six extension interns were to receive formal on the job training in extension work.

According to an Audit Report conducted on this study, (Audit Report No. 6-263-82-6), this project ran into serious difficulties and as a result, few of the original goals of this project had been met by 1982.

In 1982, four years into the project, the project was two years behind schedule. According to this Audit, "slowness in completing the design work and construction of project facilities are the major causes for a two-year delay in project implementation." In addition to the problems with construction delays, the contractor for this project, in 1982, had not yet provided the technical assistance needed to implement the project. For example, one year after the contract had been signed with the contractor, three of the seven long-term technical advisor positions were still vacant.

One of the project goals was to provide for training. According to the Audit report, the training component was also behind schedule. The participants in the training programs who were sent out of Egypt (to the United States and other countries) would not return to Egypt in time to assume project work before the technical assistants departed. This meant, that the participants in the training programs would not have the opportunity to learn project management from the technical specialists. In addition, technical assistance that was to be provided to the Ministry and long term training for Ministry participants, had either not begun or was behind schedule at the time of the Audit report.

The Audit report recommended that the project be terminated if the implementation problems could not be resolved in a timely fashion.

To date, this project has failed to meet its intended goals. It has failed due to external factors-delays in construction and hiring that were the responsibility of the contractor- not because its intended goals and implementation methods were unrealistic.

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2. PROJECT NUMBER: 5320059 COUNTRY: JAMAICA

TITLE: FISH PRODUCTION SYSTEM DEVELOPMENT

TIME PERIOD: 1979-1984

TOTAL LOP COST: 4,107,000

GOAL: TO INCREASE FOOD PRODUCTION, INCOME AND EMPLOYMENT; TO REDUCE FOOD IMPORTS THEREBY REDUCING A FOREIGN EXCHANGE DRAIN, AND TO ESTABLISH THE FOUNDATION FOR A REGIONAL TRAINING PROGRAM IN FISH PRODUCTION.

EXTENSION COMPONENTS: STRENGTHENING PUBLIC EXTENSION THROUGH TECHNICAL ASSISTANCE AND TRAINING.

This aquaculture project has accomplished a great deal more than the other aquaculture project reviewed (See above: Project 2630064 Egypt: Aquaculture Development). This project was able to build on the infrastructure established by an earlier project (5320038 Inland Fisheries Development Grant), which "established a knowledge base for conducting freshwater fish production activities in Jamaica and developed institutional capabilities for the production of fingerlings and the extension of fish farming techniques to farmers."

The major extension components of this project involved both short and long-term training of ninety new extension agents, training for nine-hundred and twenty farmers in fish production, and training of

forty-five students at the Jamaica School of Agriculture. In addition a fish hatchery/demonstration facility with 20 acres of ponds was to be established.

According to a Mid-Project Evaluation, some 450 fish farms are in operation, and many applications for additional assistance from farmers interested in fish farming have been received. Farmer training, however was below the stated goal with 49% being trained by the time of the Mid-Project Evaluation. In addition, the training for students and extension agents is also behind schedule due to the closing of the major training unit, the Jamaican School of Agriculture. Even with these delays in training, however, it appears that the project was meeting its major goals related to production.

While a final evaluation will need to be reviewed in order to examine the final developments of this project, this project appears to be more successful than the project evaluated above. Both projects were commodity specific, and both involved improving coordination and communication between individuals involved in research and those involved in extension. The second project was more successful because it was not plagued by the delays that were exhibited in project 2630064. Project 5320059 did not share any of these problems and had the benefit of being a follow-on project to a larger project which had established the necessary infrastructure and institutional capacity for developing aquaculture.

3. PROJECT NUMBER: 5980574 REGION: LATIN AMERICA

REGIONAL

TITLE: LAC REGIONAL-EDUCATION MEDIA FOR WOMEN

TIME PERIOD: 1978-1983

TOTAL LOP COST: 845,000

**GOAL: TO INCREASE AND MAKE MORE EFFECTIVE THE PARTICIPATION OF
LOW-INCOME RURAL WOMEN IN LATIN AMERICA AND THE CARIBBEAN IN THE
AGRICULTURAL SECTOR.**

**PURPOSE: TO DEVELOP AND TEST A SYSTEMATIC APPROACH TO
DISSEMINATING FARMING, MARKETING AND FOOD PROCESSING INFORMATION
TO WOMEN WHILE INCREASING THEIR AWARENESS OF AGRICULTURAL SECTOR
SERVICES FOR WHICH THEY ARE ELIGIBLE.**

**EXTENSION ASPECTS: A FOCUS ON WOMEN IN DEVELOPMENT BY
DEVELOPING A METHODOLOGY FOR DISSEMINATING AGRICULTURAL
AND RELATED INFORMATION TO WOMEN.**

This project was intended first to gather information about how rural
women currently receive information regarding agriculture and related

topics. Drawing on this knowledge, the implementing agency, the Interamerican Institute of Agricultural Sciences (IICA) was to develop a set of guidelines and methodologies for using various approaches (including mass media approaches) to reach rural women. According to the Project Summary baseline data were to be collected on:

- 1) existing mass media channels;
- 2) media habits of rural women in selected regions;
- 3) range and type of activities engaged in by these women; and
- 4) existing rural production organizations.

According to a Project Evaluation Summary conducted in 1980, the Dominican Republic was chosen for the initial field surveys. The field surveys were conducted in El Cercado in 1980. Based on these surveys, according to the PES, "appropriate new economic activities for the women were developed, promotional visits and training meetings were held and necessary supplies were distributed." Apparently, however, the original focus and intent of the project, to use the mass media to disseminate information, has been changed. According to the PES, "A major problem is the lack of mass media training activities. IICA did not fully appreciate the intent of the project to explore low-cost media based training strategies for rural women. As a result, an IICA project manager without

media experience was hired, and a site was selected in which farm women have little access to media."

Not only has the implementing agency apparently disregarded the original intent of this project they have hired a field manager who, according to the PES, "persistently argues that communication media cannot teach effectively." Furthermore, the site that was selected in the Dominican Republic was a poor choice. There is neither a local broadcast radio station nor other local media facilities. Secondly, the WID component was originally intended to be a part of an ongoing WID project. There was no such on-going project in El Cercado, therefore a new project had to be designed from scratch.

While the project in the Dominican Republic was not meeting the original goals of the project, according to the PES, it was successful in the activities undertaken. It will be necessary to examine the final evaluation of this project when it becomes available, to determine if the original goals were met in the other sites chosen for this project. The evaluation materials that are available, however, indicate that the WID component has not been vigorously pursued.

4. PROJECT NUMBER: 5220120 COUNTRY: HONDURAS

TITLE: AGRO-INDUSTRIAL EXPORT DEVELOPMENT

TIME PERIOD: 1976-1981

TOTAL LOP COST 1,700,000

GOAL: TO INCREASE SMALL FARMER INCOME

PURPOSE: TO DEVELOP THE GOVERNMENT OF HONDURAS' CAPABILITY TO ESTABLISH AGRIBUSINESS EXPORT PROJECTS WHICH WILL DIRECTLY INTEGRATE SMALL FARMERS INTO THE DEVELOPMENT PROCESS.

EXTENSION ASPECTS: THROUGH GOVERNMENT OF HONDURAS AGENCIES, SMALL FARMERS WHO WERE PARTICIPATING IN THIS PROJECT WERE TO RECEIVE TRAINING AND TECHNICAL ASSISTANCE.

This project did not have a strong extension component. It was included in this evaluation section because it was the only project involving the private sector for which there was sufficient evaluation material.

This project attempted to involve private companies in the development and marketing of agricultural products for export. Two major export products were envisioned: processed vegetables and fresh

fruits/vegetables. Training was to be established at several different levels: four individuals were to be trained at the Master's degree level in agribusiness marketing. Another was to attend a USDA seminar on agribusiness, and two marketing internships were to be established with an agribusiness corporation operating in Honduras and the U.S.

According to a final evaluation, only one individual received a Master's degree.

The two major agricultural projects involved developing an institutional capacity to export processed vegetables and fresh vegetables.

The private company contracted with to develop the processed vegetable component was Mejores Alimentos. Phase I of the project called for planting 325 mr. of tomatoes under contract to Majores Alimentos. A price of L. 100 per ton was set and production credit was to be disbursed directly from the National Development Bank. A technical team composed of both AID and MNR extension agents were to be provided.

This project was plagued with problems from the beginning. When the project began in 1977, only one specialist (working for Mejores Alimentos) had any experience growing tomatoes. The farmers who were growing tomatoes under contract with this company had little experience with this crop. The farmers were required to buy inputs from Mejores Alimentos, and the National Development Bank was billed directly for

payment of these inputs. The farmers were also required to pay for transport of the tomatoes to the plant. Losses to farmers in the first year were heavy. The farmers blamed the company for their losses and the company blamed the farmers. This part of the project came to a complete standstill after the first year, with farmers waiting up to two years for payment for their produce.

According to a mid-term evaluation of this project, the major problem with this part of the project was that the farmers bore all of the risk. Furthermore, it was discovered after the project had begun, that the parent company of Mejores Alimentos, CONADI, was not committed to AID's goal of assisting small farmers or of promoting exports to U.S. markets. The company was more interested in developing a domestic market for its goods.

The second part of this project, the fresh vegetable project fared much better than the processed vegetable project. After experiments with several different types of crops, the Standard Fruit Company decided to contract with farmers for growing cucumbers for export. While this part of the project was more successful than the processed vegetable project, the actual number of farmers involved in the project was only " a fraction of the number envisioned in the Project Paper. " Additional criticisms revolved around insufficient technical assistance and training. According to the final evaluation, while some progress was made in establishing a

framework for exporting fresh vegetables from Honduras to the U.S., the Government of Honduras had not developed an institutional capacity to continue with this type of project.

The difference between the two aspects of the project point out the importance of the agreement between the private company and the farmers. Mejores Alimentos, which was the private company contracted to develop the processed vegetable sector, appeared to have little interest or capability in training the farmers in the skills needed to grow and market vegetables for processing. Furthermore, this company locked the farmers into buying needed inputs from them, by making the farmers pay for transport, and by delaying payment for produce for up to two years. The farmers involved in this project, understandably were not interested (or in many cases able) to continue their involvement in growing vegetables for Mejores Alimentos.

The second aspect of this project which involved growing fresh vegetables under contract with Standard Fruit was more successful than the first phase. This company apparently had more technical expertise in the area and was able and willing to work more closely with the farmers involved. While this aspect was more successful, the number of farmers involved in the project was only a small fraction of that envisioned in the original project papers. Moreover, the intent of the project was to develop an institutional capacity within the Government of Honduras for sustaining this type of project. The project has failed to met this goal.

While generalizations cannot be made to all development projects involving private companies, it is clear from this one project that the use of private corporations is not a panacea for development. Other studies have pointed out the importance of "hands-on commitment by the core company and intensive managerial, technical, and field-level supervision." (Stimulating Private Sector Extension-Draft 10/24/85). Clearly this commitment was lacking in Mejores Alimentos.

The final evaluation recommended that the project be continued with modifications for three years. I have been unable to locate any documentation as to whether this project was extended.

5. PROJECT NUMBER: 4930295 COUNTRY: THAILAND

TITLE: NON FORMAL VOCATIONAL EDUCATION

TIME PERIOD 1980-1983

TOTAL LOP COST 500,000

GOAL: TO INCREASE AND REDIRECT RESOURCES AND GOVERNMENT SERVICES TO THE BENEFIT OF ECONOMICALLY DEPRESSED AREAS, AND INCREASE THE PRODUCTIVITY, INCOME AND EMPLOYMENT OPPORTUNITIES OF LOW-INCOME FARM FAMILIES.

EXTENSION COMPONENTS: STRENGTHENING PUBLIC EXTENSION BY TRAINING EXTENSION WORKERS IN SURVEY ANALYSIS TECHNIQUES, TECHNICAL TOPICS AND THE USE OF AUDIOVISUAL EQUIPMENT, AND TRAINING VILLAGERS BY DRAWING ON SETTLER/TRAINERS.

This project had two major extension components. Since the extension system in Thailand at the beginning of this project had only a small number of extension agents relative to the population, additional extension agents were to be trained in technical topics. These extension agents would then work with a team of mobile workers who would travel throughout the nikoms conducting training sessions. These mobile teams would also provide support to a group of settler/trainers, who would

receive training from the mobile teams, and then train villagers in their nikoms.

In the first phase, sixty extension workers were to be trained in the use of survey techniques, technical topics and the use of audiovisual equipment. After this training, the extension workers were to conduct a survey of a village which would be used as the control group for a baseline survey of sixty target villages.

After the training phase was completed, eight mobile teams were chosen. These mobile teams, composed of extension agents, and persons trained in the use of audiovisual equipment, were to choose the settler/trainers they would be working with in the villages, assist in training these individuals and support the settler/trainers by traveling to their nikoms. The responsibilities of the mobile teams included both training and information gathering. They were to relay questions and problems back to a regional training center.

The final phase of the project involved a follow-up survey of the 17 nikoms that had been project villages to determine the value of this extension project.

The most innovative aspect of the project involved the use of settler/trainers. It was viewed in the project documents as "new and frankly experimental." The project documents pointed out, however, that there was an expectation that the settler/trainer program would be successful because of the history of voluntarism among Thailand's rural

people.

According to an Audit Report conducted on this project, the project did not meet its goals. The project failed mainly because there was a lack of consensus as to the concept and value of "non-formal" education. The project was terminated ahead of the scheduled completion date of 12/31/83.

The major reasons given for the termination were:

- 1) reluctance on the part of many Thai officials to accept the concept of non-formal education (i.e. not in the traditional classroom) education;
- 2) lack of commitment by the Director of the Northeast Regional Training Center to the Project;
- 3) failure to utilize the mobile teams as originally intended;
- 4) the curriculum and texts which were too complex to be easily understood by the farmers.

The failure of this project highlights the importance of local support for an innovative project. While this project appeared to be designed well, the project could not succeed without local support.

Without a final evaluation, which was not conducted, it impossible to determine from the documents available what was meant by the comments that the mobile teams were not used as originally intended and that the textual materials were too complex for the farmers. Both of these

components, the use of the mobile teams and the appropriateness of the curriculum and texts, would be major determinants of the success or failure of a project oriented towards direct farmer training.

(Since the project was terminated ahead of schedule, a complete evaluation by AID was not undertaken of this project.)

6. PROJECT NUMBER: 5320046 COUNTRY: JAMAICA

TITLE: INTEGRATED REGIONAL RURAL DEVELOPMENT

TIME PERIOD: 1977-1984

TOTAL LOP COST: 15,000,000

GOAL: TO IMPROVE THE STANDARD OF LIVING OF FARMERS IN JAMAICA BY INCREASING INCOME AND PROVIDING IMPROVED ROADS, HOUSING ELECTRICITY, AND WATER. SUBGOAL: TO ESTABLISH AN AGRICULTURAL PRODUCTION MODEL THAT COULD BE REPLICATED ON SMALL HILLSIDE FARMS.

PURPOSE: INCREASING AGRICULTURAL PRODUCTION ON SMALL HILLSIDE FARMS IN THE PINDAR/TWO MEETINGS WATERSHEDS. IN ADDITION, CONTROLLING SOIL EROSION WAS A MAJOR PURPOSE OF THE PROJECT.

EXTENSION ASPECTS: TO STRENGTHEN PUBLIC EXTENSION BY TRAINING EXTENSION WORKERS, ESTABLISHING A MODEL EXTENSION SYSTEM AND SUPPORTING LOCAL FARMERS ORGANIZATIONS.

This five year integrated rural development project had several major extension components. The Agricultural Extension Service was seen as playing a major role in the design and implementation of this project, and

it was hoped that the extension program developed by this project would serve as a model for the country's extension program.

In the first phase of the project, thirty extension agents received technical training, particularly on topics related soil erosion control. After this training was completed, five demonstration and training centers and fifty small-farm subcenters were to be established to demonstrate the benefits of land terracing and multiple and continuous cropping techniques. The extension agents were also to assist farmers who were chosen to participate in the project, to develop farm plans and to select and use appropriate crop and cultivation techniques. The extension agents were also to work closely with farmer organizations, such as the Jamaica Agricultural Society (JAS) and the People's Cooperative Banks (PC Banks). The extension agents were also to work closely with the farming systems specialists to develop the most appropriate technical packages for the target farmers. It was envisioned that the extension agents would become less involved with the credit system, that their role would become "more advisory and less direct."

According to an evaluation that was conducted on this project in 1980 (Evaluation of Pindar River and Two Meetings Integrated Rural Development Project.), the project had met some of its goals, specifically related to erosion control, but that the research component of the project had become de-linked from the extension component.

According to the authors of the evaluation, the technical component of the project had made more progress than the organizational component. The erosion control program had been implemented with notable success. In fact, the extension agents had been able to reach approximately thirty-percent of the farms in the Project area. According to the evaluation, however, "the message carried by the extension is predominately concerned with soil conservation while the information carried on production techniques appears to be deficient... The agenda of the research component appears to be set independent of extension activities."

The Report indicates that while the project has made significant progress in reaching the target population, that the focus of the project has become increasingly oriented towards the soil conservation aspects. According to the authors of the Report, "what must be understood and continually repeated, is that I.R.D.P. is a development project with a strong soil conservation component, not a soil conservation project with development aspirations."

The Report also indicates that the small farmer organizations have not been included enough in the project. One of the major goals of the project was to work with these farmer organizations and bring about their participation in the project. The failure to include these participants, according to the Report, "has serious implications for the functioning of almost every component of the program."

The major criticism of the project revolved around the the fact that the research and extension components were not sufficiently linked. According to the Report, the researches technicians, " are developing their own agenda while extension activities proceed apart." The authors of the Report cite an indcident which illustrated this problem:

One member of the evaluation team visited a farm accompanied by a soil conservation agent. This was one of the first farms to receive services under the Project including a loan to finance production activities after the land treatment.

Later in the same day the same farm was visited by another evaluation team member, accompanied by technicians from the research unit. The farm was presented as one of the sub-demonstration centers used by the extension servivce and an example of how the research results were being used in the field. it was later confirmed that the farm was not a sub-demonstration center.

The final cricitism centered around the role of the extension agent.

After the farmers' lands were treated for soil erosion, the extension agent was to provide continuing information about improved farming systems, credit, (not responsibility for credit repayment, but simply availability) and marketing. The extension agents in this project are not relaying information about prices and forecasting production levels. The absence of this information could lead farmers to make unwise production decisions.

The lack of communication between the researchers and the extension agents, the lack of involvement of farmer organizations, and the lack of information provided to the farmers by the extension agents, could in the long run, undermine this project.

The criticisms of this project point out the importance of coordinating research and extension activities. Even though the project was successful in controlling erosion in many of the targeted areas, without a linkage of the technical aspects with the extension component, these successes may not be sustainable over time.

7. PROJECT NUMBER: 6360102 COUNTRY: SIERRA LEONE

TITLE: ADAPTIVE CROP RESEARCH AND EXTENSION

TIME PERIOD: 1978-1987

TOTAL LOP COST 9,000,000

GOAL: TO INCREASE SMALLHOLDER PRODUCTIVITY.

PURPOSE: TO DEVELOP A FOOD CROP ADAPTIVE RESEARCH AND EXTENSION SYSTEM RESPONSIVE TO THE NEEDS OF RURAL SMALLHOLDERS.

EXTENSION COMPONENT: STRENGTHENING PUBLIC EXTENSION BY ESTABLISHING A RESEARCH AND EXTENSION CENTER, TRAINING EXTENSION WORKERS, EXTENDING APPROPRIATE TECHNOLOGIES AND COMPLETION OF A TEN YEAR COUNTRY WIDE RESEARCH/ EXTENSION PLAN.

The major extension goal of this ten year project involved developing appropriate and adaptive research and extension capabilities which would be responsive to the needs of rural smallholders. One main objective of the project, according to the Project Paper, was to "develop an efficient and effective extension system that can be replicated throughout Sierra Leone."

The second goal of the project was to actively involve rural smallholders in the research and extension process and directly link the extension and research components. Originally 300 farmers (later increased to 675) were to be selected to be participants in the project. These farmers were to receive demonstration of new crops and farming techniques. An additional 20,000 farmers were to be provided with "minikits" consisting of planting material/seeds, cuttings, fertilizer and cultivation instructions. The project also had a training component. Thirty extension technicians were to be trained in field data collection, cropping systems, basic agronomic studies soils fertility and management, and basic extension and communication techniques.

An additional component of the project was intended to reach women smallholders who were to be given equal opportunity for training and employment in the project.

Several mass media components were also discussed in the Project Paper. According to the authors of this document, radio farm forums and the use of audio visual and audio cassette techniques were to be considered.

A Midterm Evaluation of this project indicated that a great deal of research and data-producing activities were taking place as a result of this project in both the technical and social research areas. The major criticism of the Midterm Evaluation was that due to a lack of coordination, this information was not being utilized.

An Audit Report conducted in October, 1984 was much more encouraging regarding the progress of this project. Even though farmers in the target area had been hit by labor shortages, have insufficient storage facilities for their crops and lose a sizeable portion of their crops to pests and insects, the project had made considerable progress in a number of areas. By 1984, the project had accomplished the following:

- 1) Established a U.S. technical assistance team for research at existing institutions and coordination with international institutions;
- 2) Developed an extension system to transfer research results to the farmers and trained 50 extension agents;
- 3) Involved 675 farmers in research and demonstration of new crops and farming techniques;
- 4) Distributed minikits containing improved seeds, fertilizer and farming techniques to some 20,000 other farmers, and
- 5) Enrolled 15 host country personnel in long-term educational programs and 35 in short-term programs.

The major criticisms of this project revolve around that lack of project monitoring. The baseline surveys that were conducted at the beginning of the project were used to select the farmers for demonstration farms. The information gathered could have proved

somewhat useful as a guide to measure the project impact and effectiveness. However, the information resulting from the survey has not been used in this way.

The 675 farmers who have trial and demonstration farms are monitored, and have seen an increase in crop yields. However, the farmers provided with the minikits are not monitored and evaluated. According to the Audit Report, while the 675 farmers on the demonstration plots may be representative of all farmers, without additional information evaluating the farmers who received the minikits, the effectiveness of the project cannot be judged. As a result of this criticism, project directors began a study of the farmers who had received minikits. An examination of this material, if it is available, could give a better picture of the overall effectiveness of this extension approach.

8. PROJECT NUMBER: 6850235 COUNTRY: SENEGAL

TITLE: SENEGAL CEREALS PRODUCTION II TIME PERIOD:

1979-1984

GOAL: TO INCREASE PRODUCTIVITY IN THE GROUNDNUT BASIN OF SENEGAL TO ASSIST IN MEETING THE GOVERNMENT'S LONG-RANGE GOALS OF FOOD SELF SUFFICIENCY AND AN IMPROVEMENT IN THE LIFE OF THE FARM FAMILY.

EXTENSION COMPONENTS: STRENGTHENING PUBLIC EXTENSION BY: TIGHTENING THE LINKS BETWEEN RESEARCH AND EXTENSION, REACHING WOMEN IN DEVELOPMENT, USING MASS COMMUNICATION TECHNIQUES TO REACH FARMERS, AND UPGRADING THE EXTENSION STAFF THROUGH TRAINING.

This project was a follow-on to a major project in Senegal implemented in the 1970's. This project was controversial in some respects from the start. There was disagreement within AID as to whether the first phase of this project had been successful in meeting its goals of increasing cereals production. One evaluation indicated that, "after four years of AID support, and the expenditure of \$4.67 million, we found no evidence that the first project had increased millet production." Other documents indicate that the analysis that led to this conclusion was

incorrect, and that there had indeed been increases in production.

From the start, this project was plagued by serious external factors which hindered the success of the project. These problems included: poor rainfall, high input prices, lack of credit, and unavailability of fertilizer. According to a Midterm Evaluation, "the supply system for the factors of production and the agricultural product purchasing organization virtually disappeared. Short term credit for input purchases was cancelled." In addition, there were problems related to staffing and funding. There was a great deal of turnover within the SODEVA organization, and there were considerable misunderstandings between the financial offices of USAID and SODEVA that hindered the projects progress.

The project had a number of extension components. One of the major components was to establish an audio-visual center at Pout which could develop materials for extension agents. At the time of the Midterm evaluation, there had been long delays in construction. The final report indicated, however, that the AV Center was operational, and particularly in several areas (e.g. graphics) was doing quite a good job in developing materials.

A second major extension component involved developing a Women in Development unit. As a result of a decision early on in the project to merge this component with other activities, some of the major goals of this component had been minimized. According to the Midterm Evaluation

however, "many WID component aspects are, however, successful despite these implementation problems. Communal fields, sheap fattening, woodlots, and poultry raising are going well, and management skills are being institutionalized." According to a later Impact Evaluation, the WID component was not entirely successful mainly because the USAID project manager "tended to neglect the WID component."

The project initially had a strong orientation towards training extension workers in agricultural areas. A change in orientation within SODEVA early on reoriented the focus of this training towards functional literacy. The training component, both for extension agents and for the WID unit, seemed fairly ineffective.

While the original goal of the second phase, to increase millet production was not reached (due mainly to external factors) the final evaluation suggest that the original extension messages and components did reach the targeted farmers. Some radio programs for Radio Rurala were developed; a tightening of the link between research and extension has been established and better information on millet production has reached the targeted farmers.

It is difficult to ascertain from the documents, the exact status of this project. Funding for this project was terminated for six months because of financial issues raised by AID with regard to project funding. In addition SODEVA asked formally to extend the project for an additional period. Further documentation will be needed to complete the evaluation

APPENDIX ONE

PROJECTS TO CONSIDER FOR FUTURE EVALUATIONS

1. Project Number: 6640312 Country: Tunisia

Title: CTRD Rural Extension and Outreach

The purpose of this project is to establish a communications system between farmers, extension agents and researchers in Central Tunisia. The project is part of a larger project which was scheduled to last for 7 years, from 1979-1986.

2. Project Number: 5380099 Country: Other West Indies-Eastern
C. Island
European Regional

Title: Farming Systems R & D

This project is a follow-on to project number 5380015. The purpose of this project is to "develop an effective and sustainable Farming Systems Research and Development Program in the Caribbean Agricultural Research and Development Institute (CARDI) that responds to the agricultural needs of participating countries." CARDI will also work with Public and private extension organizations, especially thge Caribbean Agricultural Extension (CAEP) and participating Ministries of Agriculture to develop a joint and systematic approach to transfer improves technologies throughout the region via the FSR method. The time period

for this project if from 1963-1988.

**3. Project Number: 5980581 (Subproject 01) Country: Latin
American Regional**

Title: Rural Communication Services

The implementing agencies for this project are ENTEL-Peru (EP), a Peruvian Telecommunication corporation and the University of West Indies. The purpose of the project is to use satellite communications to disseminate information to rural people on agriculture, nutrition and educational topics. The time period for this project is from 1979-1986.

4. Project Number: 6690134 Country: Liberia

Title: Rural Information Systems

This mass communications project is using radio communication to reach rural individuals. According to the summary and abstract, this project also is emphasizing agricultural topics. The time frame for this project is from 1980-1987.

**5. Project Number: 5380101 Country: Other West Indies
Eastern Caribbean Regional**

Title: St. Vincent Agricultural Development

This project is being implemented by the Ministry of Trade from St. Vincent, CARDI, and a PVO, the Organization for Rural Development. The project is using a farming systems approach to identify economically optimum levels of fertilization and other cultural practices. The research results will be disseminated to farmers in St. Vincent. The project began in 1984 and is scheduled for completion in 1986.

6. Project Number: 6110204 Country: Zambia

Title: Chama Rice Production

This project is being implemented by a PVO, Africare. The purpose of the project is to increase rice production in the Chama district of Zambia. According to the project abstract, " a rice-specific extension staff consisting of an agricultural assistant and commodity demonstrator will instruct each area's farmers in planting and weeding rice in rows and the use of simple hand planting and weeding machines." This project began in 1981 and was scheduled for completion in 1984. According to the DIS system however, the only document available for this project is an Operational Program Grant (OPG) paper.

7. Project Number: 4930326 Country: Thailand

Title: Seed Development II

This project is a follow-on to project number: 4930270. The purpose of this project is to support seed promotion and marketing and private sector seed efforts. The project also involves training of extension agents. The time frame for this project is from 1982-1987.

8. Project Number: 6210156 Country: Tanzania

Title: Farming Systems Research

The purpose of this project is to increase food production in Tanzania by introducing an adaptive farming systems research system. The project is also involved in strengthening the link between research and extension. According to the project's abstract, "to make food crop research more relevant, expatriate research teams will establish operational FSR programs in the three major ecological areas of Uruiguru, Lyamungu and Ilonga, comprising 15 of Tanzania's 82 districts. The teams will conduct functional farmer surveys in 60 villages, adapting a methodology developed at the International Maize and Wheat Improvement Center; conduct FSR trials for major crops in villages representing 54,000 farmers; and develop with the help of 20 project-trained FSR officers, 13-17 technology packages and extend them to 18,000 farmers." This project began in 1982 and is scheduled to be completed in 1986. According to the DI system, however, the only document available for this project to date is the Project Paper.

8. Project Number: 9311144 Country: LDC Farmers

Title: Farmer to Farmer Program

This project was the only project of its kind represented on the DI system. The project which ran from 1978-1979 was to recruit and train LDC farmers at U.S. universities. The only document available for this project (A Miscellaneous Project Document) did not have sufficient information in order to evaluate this project. It might be worthwhile to attempt to contact individuals who were involved with this project.

9. Project Number: 5220209 Country: Honduras

Title: Small Farmer Livestock Improvement

This project involves establishing a joint public-private company, the Fundo Ganadero of Honduras (patterned after projects in Ecuador, Colombia and Bolivia) to provide farmers with training, technical assistance and credit. The project began in 1983 and is scheduled to be completed in 1990.

10. Project Number: 6980388 (Subproject 06) Africa Regional

Title: WTD-TRNG Farmer Women for Agr Pro-Chad

This project which began in 1976 and was to be completed in 1984, was to establish special training centers in agriculture for women in Chad. The only documents available on the DI system for this project are a Sector Assessment and a Bibliography.

CONCLUSION

It is incorrect to draw conclusions regarding the general approaches used in these projects with such a small sample. It would be useful to evaluate the projects listed in Appendix One when documentation becomes available. Three of these projects used a farming systems approach; two were implemented by a PVO, and two involved the private sector in the project.

For the projects evaluated, however, several problems emerged that were shared by the eight projects. Many of the failures exhibited by the projects evaluated, involved either external factors or were unrelated to a specific orientation or approach. Several of the projects suffered from poor performance by contractors. Contractors had not staffed the projects correctly, were behind in training, staffing and construction (e.g. Project 2630064), or had mismanaged funds.

A second general problem revolved around ensuring local support for a project, particularly one using a new and innovative approach, before the project is funded. Several of the projects (e.g. 4930295) ran into difficulties because important local officials either did not understand or did not support the approach undertaken.

Based on these reviews, it also appears that long-range planning for transition from AID to the host government is rarely undertaken, (e.g. 5220120), and that host governments often do not have the ability to fund recurring costs.

An additional general criticism is that extension agents are either overburdened by too many (and often inappropriate tasks) and are not well trained to do extension work (e.g. 5320046).

It is clear from this evaluation that these innovative projects suffered from several serious problems. But from this analysis alone, it cannot be determined whether all projects using innovative methods will exhibit similar problems or indeed whether other more traditional projects also suffer from the shortcomings pointed out in this evaluation.

APPENDIX TWO
CATEGORIZATION OF 1065
AID EXTENSION PROJECTS

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EXTENSION PROJECTS

Page 1

PROJECT ID	COUNTRY	PROJECT NAME	COST (K 000)	SCOPE	IMPLEMENTING ORG.
2630027	Egypt	Rice research	23.707	National	Government
2630054	Egypt	Aquaculture Development	27.500	National	Government
2630070	Egypt	Major Cereals	47.000	National	Government
2630090	Egypt	Small Scale Ag. Activities	1.700	National	Government
2780241	Jordan	Jordan Valley Ag. Services	5.620	National	Government
2790019	Yemen	Poultry Development	1.926	National	Government
2790030	Yemen	Sorghum and Millet Crop Imp.	3.300	National	Government
2790052	Yemen	Ag. Development Support	41.330	National	Government
3050163	Afghanistan	Integrated Wheat Development	4.378	National	Government
3670102	Nepal	Institute of Ag. and Animal Sci.	5.464	Institute	Institute
3670102	Nepal	Institute of Ag and Animal Science	5.464	Institute	Institute
3670114	Nepal	Integrated Cereals	6.239	National	Government
3670132	Nepal	Resource Conser. and Util. (Sub)	27.498	National	Government
3670132	Nepal	Resource Cons. and Utilization	27.498	National	Government
3670149	Nepal	Institute of Agriculture II	0	University	Govt/Univ
3670149	Nepal	Institute of Agriculture II	0	University	Univ/Institute
3680049	Sri Lanka	Agricultural Edu. Development	7.500	University	Univ/Institute
3680475	India	Madhya Pradesh Social Forestry	14.000	National	Government
3680476	India	Maharashtra Social Forestry	30.000	National	Government
3680481	India	Maharashtra Irrig. Tech and Mgmt	47.000	National	Government
3680051	Bangladesh	Agricultural Research Phase II	25.500	National	Government
3910403	Pakistan	Dry Land Ag. Development I	650	National	Govt/AID
3910413	Pakistan	On-Farm Water Management II	27.500	National	Government
3910485	Pakistan	Gadon-Amazai Area Development	30.000	National	Government
3910486	Pakistan	Irens and Inlag of Ag. Network	35.500	National	Govt/Univ
4920005	Burma	Maize and Oilseeds Production	30.000	National	Government
4920206	Philippines	Aquaculture Production	885	National	Government
4920206	Philippines	Pest Control	5.009	National	Government
4920302	Philippines	Integrated Ag. Prod and Marketing	12.000	National	Govt/Univ
4920310	Philippines	Blood Integrated Development II	3.000	National	Government
4920322	Philippines	Fresh Fisheries Development	1.700	National	Government
4920331	Philippines	Agricultural Ext. Outreach	2.500	University	University
4920356	Philippines	Farming Systems Development	3.000	National	Government
4930266	Thailand	Thailand Ag. Development	5.000	National	Government
4930272	Thailand	Low Nae On-Farm Development (Sub)	4.800	National	Government
4930280	Thailand	Ag. Extension Outreach	3.000	National	Government
4930289	Thailand	Land Settlements	4.200	National	Government
4930294	Thailand	Highland Area Development	7.300	National	Government
4930295	Thailand	Non-Formal Vocational Edu.	500	National	Government

EXTENSION PROJECTS

PURPOSE	APPROACH	ORGANIZATIONAL DEVEL.
Training farmers and extension agents	Tech. training/ Demos on farm	Support
Training fishermen / extension agents	Technical training and demonstrations	New organization
Improved R/E	Strength. ext. service. pilot ext. prog.	Support and new program
Training farmers/ profes/ ext. agents	Formal edu. training on farm demos.	New extension program
Training farmers / ext. agents	Demos on farm, mass-media/ tech training	Support and new centers
Training farmers, ext. agents R/E links	Demos/tech training	New centers
Improved R/E/ training professionals	Technical assistance	New center
Training farmers/ profes/ ext. agents	Demos/ Technical training	
Training farmers/ ext. agents, R/E	Demos, on-farm/tech training	New center
Education and training professionals	Formal education	Support
Eduo and training profe / ext. agents	Eduo and tech. training	Support
Training farmers/profe/ext. agents	Demos, on farm/tech training	New center
Training extension agents/WFO	Tech training	Support
Eduo and training ext. agents/ WFO	Tech training	Support
Training professionals/ ext. agents	Formal eduo/ Tech training	Support
Training professionals	Formal eduo and tech. training	Support
Training villagers/ profes/ ext. agents	Training/ eduo/ inputs (e.g. trees)	New organization/ Support
Est. of R/E unit, training villagers	Tech. ext. and training	New organization
Training farmers	FS	
Training farmers/ ext. agents	Demos on farm, FS/ Tech training	
Training farmers / ext. agents	Demos/tech training/R/E links	
Training farmers	Demos on farm, Mass-media	
Training farmers/ext. agents	Demos on farm/tech training	
Training ext. agents	Tech training, new center for training	New center
Training farmers/ profes/ ext. agents	Demos, tech. training inputs(e.g. fert)	New info system
Training ext. agents	Tech training literature, R/E links	Support
Training farmers/ ext agents/R/E	Demos, mass-media/tech training	New centers
Training farmers		
Training farmer/ ext. agents	Demos/Tech training/FS	
Training fishermen/ext. agents/	Demos/tech training	
Training professionals	Formal education	New center
Training farmers	Farming systems	
Training professionals, ext. agents		
Training farmers	Demos, model farms, RD	Support
Training farmers	Model farmer: demos/tr for tr/ disc info	
Training farmers/ ext agents R/E links	FS/ Tech training	
Training farmers/ ext agents	Technical training	
Training ext. agents, R/E links	Technical training	New center

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PROJECT ID	COUNTRY	PROJECT NAME	COST (x 000)	SCOPE	IMPLEMENTING ORG.	PURPOSE	APPROACHES	ORGANIZATIONAL DEVEL.
4300308	Thailand	NE Rainfed Ag. Development	\$ 12,000	National	Government	Training farmers/ ext. agents	Demos/ Tech training	Support
4300320	Thailand	Seed Development II	\$ 6,200	National	Government	Training farmers/ profs/ ext. agents	Demos, mass media/Edu/ Tech tr/pt co.	Support
4900332	Thailand	Khon Kaen Univ. Research Devel.	\$ 2,000	National	Government	Training farmers	Farming systems	New center
4900336	Indonesia	Assistance to Agr-Fisheries Dev.	\$ 417	National	Government	Training farmers/ ext. agents	Demos/ Tech training	Support
4900263	Indonesia	Sumatra Agricultural Research	\$ 9,500	National	Government	Training professionals	Education	Support
4900266	Indonesia	Science and Tech. Res. Assst. Tr.	\$ 6,000	National	Govt/Univ	Training ext. agents	Edu, tech training, disse of info	Support
4900275	Indonesia	Professional Resources Devel. II	\$ 3,900	National	Government	Training professionals	Education	Support
4900281	Indonesia	Citanduy II	\$ 27,000	National	Government	Training farmers/ ext. agents	Demos/ Education	Support
4900281	Indonesia	Citanduy II (Sub)	\$ 27,000	National	Government	Training farmers/ ext. agents	Tech training	Support
4900285	Indonesia	Small Scale Fisheries Develop.	\$ 3,000	National	Government	Train ext. agents/Ext. of ext. service	Tech training/New programs	Support
4900293	Indonesia	Eastern Islands Ag. Edu Title XII	\$ 6,800	University	University	Training professionals	Formal Education	Support
4900304	Indonesia	Secondary Food Crops Development	\$ 5,400	National	Government	Training farmers	Demos	Support
4900311	Indonesia	Upland Ag. and Conservation Proje	\$ 16,540	National	Government	Training farmers	Pilot FS program	Support
4900254	Asia Regional	AIDSAT Commun. in Development	\$ 705	Regional	AID	Education and training of farmers	Mass communications	Support
4900257	Asia Regional	Ag. Development Council II	\$ 444	Regional	PVO?	Edu and training profs/ ext. agents	Formal education/Technical training	Support
4900257	Asia Regional	Ag. Development Council II	\$ 444	Regional	PVO?	Edu and training profs/ ext. agents	Edu, training R/E links	Support
4900261	Asia Regional	So. Pacific Isl. Ag. Devel. (Sub)	\$ 1,000	National	University	Training profs/ ext. agents/Imp. R/E	Technical training/Dissem of info	New centers
4900261	Asia Regional	So. Pacific Isl. Ag. Devel. (Sub)	\$ 1,000	National	University	Improved R/E	Formal education	Support
4900261	Asia Regional	So. Pacific Island Ag. Devel.	\$ 1,000	University	University	Edu and training professionals / R/E	Formal education	Support
4900261	Asia Regional	So. Pacific Island Ag. Develop.	\$ 1,000	University	University	Edu and training profs / ext. agents	Edu, training R/E links	Support
4900261	Asia Regional	So. Pacific Island Ag. Devel (Sub)	\$ 1,000	University	University	Edu and training profs / ext. agents	Tech. training/Dissem of info	Support
5040075	Guyana	Small Farm Dev-Black Bush Region	\$ 6,900	National	Government	Training ext. agents	Training and tech asst.	Support
5050005	Belize	Livestock Development	\$ 3,420	National	Government	Training farmers	Training and demos	Support
5110053	Bolivia	Ag. Development Sector I	\$ 9,200	National	Government	Training profs/R/E links	Education	Support
5110451	Bolivia	Basic Foods Prod and Marketing	\$ 5,900	National	Government	Edu and training farmers/profs	Education, training literature	Support
5110543	Bolivia	Chapare Regional Development	\$ 20,650	National	Institute/priv	Training farmers/R/E links	Demos, priv. co. involvement	Support
5130314	Chile	School-Family Garden Coop (CFG)	\$ 150	National	PVO	Training rural students/farmers	Education/Demos	Support
5140201	Colombia	Rural Develop. OPS (OPG)	\$ 879	National	PVO	Training farmers/ext. agents	Training tech asst.	Support
5140226	Colombia	Ag. Training Program OPG-PVO	\$ 250	National	PVO	Training young farmers for extension	Training tech assistance	Support
5150138	Costa Rica	Science and Technology	\$ 4,500	National	Government	Str. R/E links/Dissem of info.	Demos, edu, literature	Support
5170110	Dominican Rep.	Agriculture	\$ 11,999	National	Government	Training farmers	Demos, media, pr. sector	New unit
5170146	Dominican Rep.	Agriculture Sector Loan II	\$ 15,000	National	Government	Training ext. agents	Support	Support
5170126	Dominican Rep.	Natural Resources Mgmt (Sub)	\$ 11,200	National	Government	Training farmers	Demos, literature, model farms, tech ext.	Support, New station
5170199	Dominican Rep.	On-Farm Water Management	\$ 12,000	National	Government	Training farmers/ profs/ ext. agents	Training, demos/tech asst. Edu/training	Support
5170182	Dominican Rep.	Inland Fisheries II	\$ 276	National	Government	Strengthening ext. service	Support	Support
5170180	Dominican Rep.	Ag. Research and Extension	\$ 0	National	Government	Training farmers/R/E links	On-Farm demos	Support
5180012	Ecuador	Integrated Rural Development	\$ 5,754	National	Government	Training farmers, ext., agents	Mass-media/tech asst. IFD	Support
5180032	El Salvador	Rural Tech. Transfer System (Sub)	\$ 11,300	National	Government	Training farmers/profs/R/E Links	Training/Dissem of info.	Support

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EXTENSION PROJECTS

EXTENSION PROJECTS

PROJECT ID	COUNTRY	PROJECT NAME	COST (x 000)	SCOPE	IMPLEMENTING ORG.	PURPOSE	APPROACH	ORGANIZATIONAL DEVEL.
5190174	El Salvador	Intensive Small Farm Management	\$ 1,161	National	Government	training farmers/ ext. agents	Demos/Training	
5190184	El Salvador	Small Farm Irrigation Systems	\$ 6,100	National	Government	training farmers/ ext. agents	Training and tech. asst.	
5190211	El Salvador	Small Farm Natural Res. Mgmt.	\$ 160	National	Government	training farmers/ ext. agents	Training and tech. asst.	
5190259	El Salvador	Agrarian Reform Support Tech Asst.	\$ 5,000	National	Government	training profs/ext. agents	Demos and training	
5190262	El Salvador	Agrarian Reform Org. (Sub)	\$ 23,173	National	Government	training farmers/ Professionals	Technical assistance	
5190265	El Salvador	Agrarian Reform Sector Support	\$ 34,930	National	Government	training farmers/professionals	Training on-farm/tech training	Support
5200255	Guatemala	Small Farm Diversification Sys.	\$ 6,100	National	Government	training farmers/profs/ext. agents	Mass media/training/edu.	Support
5200267	Guatemala	Training School for Promoters	\$ 232	National	FVO	training ext. agents/R/E links	Training tech. asst.	
5200274	Guatemala	Highlands Ag. Development	\$ 12,000	National	Government	training ext. agents		
5200290	Guatemala	Small Fish Pond Development	\$ 343	National	FVO	training farmers	Training and tech. asst.	
5210073	Haiti	Small Farm Develop. Proj. (Comm sp.)	\$ 6,110	National	Government	Training fishermen/ ext. agents	Literature, training, tech. asst.	
5210076	Haiti	Integrated Ag. Development	\$ 18,695	National	Government	Dev. of ext. activities		
5210122	Haiti	Agroforestry Outreach	\$ 11,500	National	Government	Training ext. agents/Str. ext. serv/R/E	Tech training	Support
5210173	Haiti	Coffee Technology Transfer	\$ 0	National	FVO	training farmers/ext. agents/ R/E links	Demos/Training tech. asst.	
5210174	Haiti	Radio Ag. Extension Programming	\$ 0	National	Government	training farmers, Comm. specific	Tech. asst., disse. of info.	
5210175	Haiti	Seed Multiplication and Ext.	\$ 0	National	Government	Educ. and to farmers	Mass media	Support
5210182	Haiti	Non-Governmental Org. Support II	\$ 0	National	Government	training profs./Distr. of seeds/R/E links	Tech. asst./Private co. involvement	
5220120	Honduras	Agro-Industrial Export Devel.	\$ 1,700	National	Government	training ext. agents	Support for agribusiness	
5220123	Honduras	Small Farmers Technologies	\$ 7,042	National	Government	training farmers, ext. agents	Demos, FS	
5220139	Honduras	Agricultural Research	\$ 2,750	National	Government	training farmers/ext. agents/ R/E links	Demos/ training	
5220150	Honduras	Agriculture Sector II (Sub)	\$ 25,000	National	Government	training professionals, WD	Education and training	Support, New centers
5220150	Honduras	Ag. Sector II Program	\$ 25,000	National	Government	training professionals	Education and training	
5220170	Honduras	Small Farmer Coffee Imp. (Comm sp.)	\$ 9,550	National	Government	training farmers and ext. agents	Training, mass media/tech. asst., training	Support
5220209	Honduras	Small Farmer Livestock Improv.	\$ 13,000	National	Government	training farmers	Ext. of priv. pub. co. for tr., tech. asst.	Support
5240146	Nicaragua	Radio Educ. Eastern Nicaragua	\$ 150	National	Government	training villagers and farmers	Mass media	
5240205	Nicaragua	Appropriate Ag. technology	\$ 305	National	FVO	ext. act. centers, training villagers		Support
5250173	Panama	Agriculture	\$ 8,100	National	Government	Develop ext. centers	new center	
5250198	Panama	Training of Rural Youth (TRY)	\$ 225	National	FVO	Training youth in farming	Training, literature, priv. sector invol.	Support, new centers
5250216	Panama	Managed Fish Production	\$ 1,142	National	Government	training profs.	Tech. asst., training	Support
5250277	Panama	Ag. Technology Transfer	\$ 7,500	National	Government	training trainers/ext. agents	Educ. tech. asst. mass media	Support
5260103	Paraguay	Small Farmer Livestock Prod.	\$ 482	National	Government	training farmers/ext. agents	Demos/training, literature	
5260105	Paraguay	Farm Mgmt. Service Small Farms	\$ 6,000	National	Government	training farmers/profs/ext. agents/R/E	Training, edu. literature	
5260109	Paraguay	Small Farm Technology	\$ 2,250	National	Government	training farmers/profs	Training, mass media/Educ	
5260186	Paraguay	Haciendas Crop Intensification	\$ 100	National	Government	training farmers	Mass media and tech. asst.	Support
5270143	Peru	Carpasino Para-Technician Training	\$ 2,302	National	Government	training farmers / ext. agents	Technical training	
5270149	Peru	Soy and Corn Prod. on Small Farms	\$ 19,000	National	Government	training farmers	Demos and training	Support
5270163	Peru	Devel. of Sub-Tropical Lands	\$ 490	National	Government	Increasing extension service	Demos, on-farm	Support
5270170	Peru	On Farm Water Management		National	Government	training farmers		Support

PROJCT ID	COUNTRY	PROJECT NAME	COST (x 000)	SCOPE	IMPLEMENTING ORG.	PURPOSE	ACTIVITIES	ORGANIZATION DEVEL.
6250937	Upper Volta	Accelerated Impact Program	\$ 3,577	National	Government	training villagers/ext. agents /WD	training tech asst.	Support
6310001	Cameroon	N. Cameroon Seed Multiplication Pr	\$ 1,408	National	Government	training farmers/ ext. agents	Mass media, literature/training	
6310002	Cameroon	Young Farm Family Tr Center (FPC)	\$ 952	National	FMO	training farm families	Education and training	New centers
6310004	Cameroon	North Cameroon Live & Ag. Dev	\$ 5,439	National	Government	training farmers	Edm. training tech asst.	
6310015	Cameroon	Small Farmer Live/Poultry Dev (PB)	\$ 1,285	National	FMO	training profs/ classes of livestock	Education training on-farm	
6310023	Cameroon	Mo. Cameroon Seed Multiplicat. II	\$ 17,870	National	Government	training profs/ext. agents	Education/training	
6310031	Cameroon	Agricultural Education	\$ 28,651	University	University	training professionals R/E links	Education, demos at univ.	Support
6320065	Lesotho	Farming Systems Research	\$ 12,189	National	Government	training profs in farming sys.	training, dissemin of info	Support
6330059	Botswana	Botswana Rural Harpower Develop.	\$ 155	National	FMO	training professionals		
6330215	Botswana	IVS Botswana Horticulture Dev. Proj	\$ 471	National	FMO	training farmers/ ext. agents	training and tech. asst.	
6350203	Gambia	Mixed Farming and Res. Hgmt (Sub)	\$ 2,000	National	Government	training farmers	training, demos, tech asst	
6350203	Gambia	Mixed Farm and Res. Hgmt (Sub)	\$ 2,000	National	Government	training farmers/ext agents	Demos, training	
6350203	Gambia	Mixed Farm and Res. Hgmt (Sub)	\$ 90,000	National	Government	training profs	Education/tech asst.	
6350203	Gambia	Mixed Farm and Res. Hgmt (Sub)	\$ 9,000	National	Government	training farmers in on. mkt.	training in animal medications	Support
6350215	Gambia	Technical Skills Training (FPC ODI)	\$ 705	National	Government	training profs/WID	Education and training	
6360107	Sierre Leone	Adaptive Crop Research and Ext.	\$ 2,100	National	Govt/Univ	training profs/farmers/ext	Edm/Demos and training	New center
6410067	Ghana	Managed Input and Ag. Services	\$ 26,070	National	Government	training farmers/ext agents/ WID	training, demos/tech asst.	
6410072	Ghana	Farmer Assn and Agribusiness Dev.	\$ 5,000	National	Government	training tech asst.	Support	
6410102	Ghana	Mkn. Inputs & Del of Ag Serv (Sub)	\$ 21,117	National	Government	training farmers/ ext. agents/WID	training, demos, FS	
6450112	Swaziland	Swaziland Cropping Sys R Ext Tr	\$ 14,953	National	Government	training ext. agents	Education and training	
6490101	Somalia	Ag. Extension, Training and Res.	\$ 5,053	National	Government	training farmers/ ext. agents	Demos, training	Support
6490112	Somalia	Agricultural Delivery Systems	\$ 10,752	National	Government	training profs/ext. agents	training	New center
6500010	Sudan	Sudan Ext. Eduo Tr for Human Reso.	\$ 306	National	FMO	Educ for WID-analysis of ext. services	Education	
6500018	Sudan	Blue Nile Ag. Development	\$ 12,032	National	Government	training farmers/ext. agents	training, demos, tech asst.	
6500021	Sudan	Southern Harpower Development	\$ 6,640	National	Government	training profs/ext. agents	Edm. training in FS/tech asst	New center
6500103	Sudan	South Region Ag Rehab Devel	\$ 150	National	Government	training ext. agents in communications	Edm. and training	Support
6570005	Guinea-Bissau	Small Scale Fisheries	\$ 500	National	Government	training fishermen	Demos	
6570009	Guinea-Bissau	Rice Production II	\$ 4,500	National	Government	training ext. agents/WID	training	Support
6600059	Zaire	North Shaba Maize Prod.	\$ 22,125	National	Government	training farmers/ext. agents	training	
6600077	Zaire	Manioc Outreach	\$ 4,500	National	Government	training ext agents/R/E links	Education and training/mass-comm.	
6600082	Zaire	Imeko Integrated Rural Dev FMO	\$ 410	National	FMO	training farmers	training/BFD	
6600091	Zaire	Applied Ag. Research and Ext.	\$ 11,000	National	Government	training farmers/R/E links	FSME	
6620002	Seychelles	Food Crops Research	\$ 1,520	National	Government	training farmers/R/E linkages	training, demos/conference	
6630182	Ethiopia	ADA Ag. Development Project	\$ 2,176	National	Government	training farmers	Education and training	Support, New centers
6630186	Ethiopia	Pulse Diversification and Imp.	\$ 1,400	National	Government	training ext. agents/R/E links	training	New ext. system
6630178	Ethiopia	Agricultural Sector Loan IV	\$ 15,000	National	Government	Dev. of ext. programs		Support
6630213	Ethiopia	CPD World Education	\$ 1,295	National	FMO	Educ. in agriculture-WID	Education, training, literature	
6630214	Ethiopia	Piloto Regional Rural Development	\$ 724	National	FMO	training farmers	training and demos, BFD	

PROJECT ID	COUNTRY	PROJECT NAME	COST (x 000)	SCOPE	IMPLEMENTING ORG.	PURPOSE	APPROACH	ORGANIZATIONAL DEVEL.
6640293	Tanzania	Livestock Feed Prod. Project	\$ 2,497	National	Government	Training farmers / extension agents	Tech training/Demos and on-farm edu.	
6640304	Tanzania	Ag. Training and Tech. Transfer	\$ 5,900	National	Government	Training professionals		Support; new organization
6640312	Tanzania	CIRD Rural Ext and Outreach (Sub)	\$ 26,612	National	Government	New R/E System	Strength ext services; new center; demos	
6640318	Tanzania	INAT Faculty Development	\$ 390	Institute	Institute	Education and training of professionals	Formal education; research ext. links	Support
6650127	Liberia	Ag. Cooperative development	\$ 1,400	National	Government	Training farmers/profs/ext	Training mass media/Education	
6650134	Liberia	Rural Information Systems	\$ 17,700	National	Government	Training farmers/professionals	Mass media/Technical training	
6650135	Liberia	Ag. Research and Extension	\$ 4,997	National	Government	Training profs/ext. agents/R/E links	Education; training literature	New center
6650139	Liberia	Upper Borg Duxky IFD	\$ 6,500	National	Government	Training ext. agents	Training IFD	New system
6650142	Liberia	Upper Lofa Rural Development	\$ 7,000	National	Government	Training farmers/ext. agents	Training	New ext. service
6650153	Liberia	Rural Dev. Tr. Cuttington College	\$ 4,755	National	Church	Training farmers to be ext. agents	Education	
6650154	Liberia	Ninaba Rural Technology	\$ 164	National	Government	Training farmers/ext. agents	Training in App. tech	Support
6750201	Guinea	Guinea Ag. Prod and Training	\$ 14,400	National	University	Training profs/ext. agents	Education; training	
6760004	Sen Afr Rep	Fish Culture Extension	\$ 118	National	Government	Dev of ext. system		New system
6760015	Sen Afr Rep	Rural Development	\$ 1,000	National	Government	Training fishermen/ext. ag/ R/E links	Demos (fish) training tech asst (bees)	Support
6770002	Chad	Ag. Institutional Dev and Ext (Sub)	\$ 5,400	National	Government	Training ext. agents	Education; training tech asst.	Support
6770201	Chad	Chad Range & Live. Herder Tr (Sub)	\$ 3,207	National	Government	Training villagers as ext. agents	Training	New system
6790001	Congo	Smallholder Ag. Development	\$ 2,000	National	Government	Training farmers	Demos, discuss of info	
6820204	Mauritania	Vegetable Production	\$ 1,805	National	Government	Training profs/ext. agents	Education/Training	
6820201	Mauritania	Integrated Devel. of Oases	\$ 5,931	National	Government	Training farmers	Training demos	
6830205	Niger	Niamey Dept. Rural Dev. (Sub)	\$ 4,698	National	Government	Training ext. agents	Training IFD	
6850225	Niger	Cereals Research	\$ 10,600	National	Institute	Training profs/ ext. agents/R/E links	Edu/Tech asst. training	Support
6850201	Senegal	Senegal Cereals Production	\$ 0,746	National	Government	Training ext. agents/R/E links	Training	Support
6850202	Senegal	Senegal Range and Livestock Dev.	\$ 5,025	National	Government	Training ext. agents	Training tech asst.	
6850205	Senegal	Cesamence Regional Development	\$ 32,604	National	Government	Str. ext. services, R/E linkages		Support
6850224	Senegal	SCIESP Livestock Prod. Project	\$ 8,004	National	PNOT	Training ext. agents	Training and tech asst.	
6850235	Senegal	Senegal Cereals Prod. Project	\$ 7,700	National	Government	Training farmers and ext. agents, NID	Training and tech asst.	
6860201	Upper Volta	Eastern ORD Non-Formal Edu.	\$ 4,810	National	Government	Edu. ext. agents	Edu. training; demos, FSR	Support
6860202	Upper Volta	Upper Volta Seed Multiplication	\$ 1,656	National	Government	Training farmers/ext.	Preparation of educ. materials for ext.	
6860212	Upper Volta	Onho Area Village Dev. Fund	\$ 2,173	National	Government	Training farmers/ext. ag. diss of info.	Tech. asst and training	Support
6860221	Upper Volta	Ag. Human Resources Dev.	\$ 9,099	National	Government	Training profs/ext. agents	Education and training	New centers/Support
6860231	Upper Volta	Saganga Int. Rural Dev. OFG (Sub)	\$ 5,956	National	PNV	Training farmers, villagers	Training and demos.	Support
6860241	Upper Volta	Saganga Int. Rural Dev. OFG (Sub)	\$ 3,000	National	Governments/IFAD/UNP	Training profs/ext. agents	Education and training	
6860244	Upper Volta	Eastern Region Food Prod.	\$ 1,600	National	Government	Training farmers/ext. agents	Training demos/tech.	Support
6860245	Upper Volta	Foundation Seed Production	\$ 2,066	National	Government	Training farmers	Training demos	Ext serv. est.
6880123	Haiti	Action B.E.	\$ 2,066	National	Government	Training farmers/NID	Training	
6880212	Haiti	Haiti Crop Production	\$ 12,360	National	Government	Training herders		
6880213	Haiti	Haiti Livestock Sector Grant	\$ 17,005	National	Government	Training farmers/profs/ext agents	Training tech asst/Education	Support
6880210	Haiti	Operation Haiti Valley (Sub)	\$ 16,383	National	Government	Training farmers/ext agents		Support
6880218	Haiti	Livestock Sector II	\$ 13,945	National	Government	Training farmers/ext agents		Support

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AID'S EXPERIENCE IN AGRICULTURAL EXTENSION

Presented to the
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Gerald M. Britan, Ph.D
Center for Development Information and Evaluation
Agency for International Development

The views expressed in this paper are those of the author and do not necessarily represent the views of the Agency for International Development

INTRODUCTION

This paper provides a preliminary assessment of AID's past extension experience, current project portfolio, and future extension priorities. It is, in a sense, an interim report of a continuing study of AID projects aimed at identifying innovative extension approaches and their applicability in varying settings. As such, it is also part of a larger agency-wide initiative to implement the Administrator's renewed emphasis on technology transfer for agricultural development.

AID began its development work with a strong commitment to agricultural extension. During the 1940's, 1950's, and early 1960's, AID and its predecessor agencies devoted a large portion of their resources to establishing, expanding, and supporting extension institutions throughout the world. This involved literally thousands of extensionists on AID's direct hire staff or borrowed from the USDA and the land grant universities.

After peaking in the late 1950's and early 1960's, AID's commitment to supporting national extension institutions was largely abandoned. By the 1970's, AID's support for national extension activities had virtually ended. What support for extension remained was, for the most part, associated with particular dissemination efforts--either as part of applied research projects or as part of geographically focused integrated agricultural or integrated rural development efforts. By the mid-1970's, national extension systems

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had become the central concern of other development donors, particularly the World Bank.

Now in the 1980's, AID's interest and involvement in agricultural extension is rising again. In part, this reflects the agency's (and the larger development community's) re-emphasis of agricultural growth as a primary force in economic development. In part, it reflects the success of agricultural change and the Green Revolution in a few locales. In part, it reflects the continuing failure and relative decline of agriculture, and the worsening food situation, nearly everywhere else, but especially in Africa.

Although AID's new agricultural extension initiatives are just taking shape, they will likely differ markedly from AID's earlier efforts, and from extension as it is conceived by most developing country bureaucrats and American extensions. AID's new extension initiatives promise to be more action oriented, more production and technology oriented, more decentralized, and more innovative. They promise, in other words to be more in tune with the opportunities that developing country farmers actually face and more willing to mobilize resources to initiate change. But, before considering these new directions, we should first look at how AID's extension activities have evolved.

WHY AID ABANDONED EXTENSION

During the first two decades after the Second World War, AID and its predecessors played a prominent role in creating and expanding national extension systems throughout the world. AID, for example,

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built national extension systems in nearly a dozen Latin and Central American countries where none had existed before. It built universities, provided training and technical assistance, and paid recurrent costs for other extension systems throughout Asia and Africa.

Yet despite its apparent success at building extension institutions (and despite intensive political debates), AID abandoned its extension emphasis quite quickly. The reason was simple: AID's investment in agricultural extension was widely perceived as a failure because the extension systems that had been created were generally ineffective, inefficient, and irrelevant. Improved technology was simply not being transferred to farmers and agricultural productivity was increasing little if at all.

Despite AID's investment, agricultural extension in most of the developing world continued:

- o to be overly centralized and politicized;
- o to have limited contacts with farmers, researchers, private industry, and other agriculture participants;
- o to disseminate inappropriate technical packages by rote and to have limited knowledge of actual farming systems;
- o to have poorly training and overworked extension agents with numerous non-extension responsibilities and limited experience in rural areas;
- o to rely on ineffective and outmoded methods; and
- o to have little or no effect on agricultural production.

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These problems, of course, reflected difficult conditions and limited resources, colonial legacies, inappropriate policies, and poor management, but they also reflected AID's own misperception of the nature and role of extension in developing countries.

In the 1950's most experts felt that appropriate Western technology already existed to improve developing country agriculture; all that was needed was to teach native farmers how to use it. This American ethnocentrism generally ignored the developing world's lack of inputs, services, and markets, as well as local political, economic, and social conditions. It adopted an extensionist view of extension, emphasizing process over substance, and trying to motivate farmers without altering the conditions that they were being motivated to overcome.

Rice's 1971 report on "Extension in the Andes" summed up the failures of AID's support for national extension systems and suggested an alternative emphasis on extension activities grounded in the realities of particular agricultural change and rural development programs. By the early 1970's, in fact, most of AID's extension activities were conducted as part of larger agricultural research or area development projects. But this also proved problematic. Most research projects, for example, emphasized research--the development of new technologies. Extension came later, as an after-thought, and, given the realities of AID programming, often remained unfunded. In IAD and IRD projects, extension was only one part of a complex, multicomponent effort; occasionally it was successful, more often it failed. In general, such extension activities had marginal effects on marginal projects.

EXTENSION PROJECTS FROM 1975 TO 1984

By the mid-1970's, however, AID missions began experimenting with a wider variety of extension approaches. Some projects reflected a growing interest in particular extension techniques, such as mass communications. Other projects involved new approaches to agricultural development, such as Farming Systems Research. [?] Some others still represented small scale dissemination efforts associated with research or IRD projects. A few even addressed national extension system problems.

As the 1970's proceeded, more extension projects began to emerge. Between 1975 and 1984, for example, nearly 300 projects with significant extension components were initiated. More than 80% of these projects involved substantial extension activities within a single country. More than 65% were implemented through government agencies, about 14% involved PVO's, 6% involved universities, and less than 2% involved private firms.

Almost 50% of the projects included training for extension agents as a major component. Almost 44% also included some kind of direct training for farmers, often bypassing national extension systems. Only about 16% of the projects focused explicitly on improving research and extension links. Only about 3% focused on improving national extension institutions themselves.

Most of these extension projects were fairly conventional human resource development efforts. Nearly 30% of the projects, for example, provided formal classroom education for extension agents,

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another 16% supported training institutes and workshops, and another 12% provided on-the-job technical assistance. In addition, almost 25% of the projects supported extension demonstrations, usually in connection with specific commodity or research projects.

However, what characterizes these projects more than anything else is their eclecticism. They are all bits and pieces. Few seek radical changes. None address the major constraints facing national extension systems. Together, they do not ^{add} AID up to a coherent strategy for improving extension, either within a country or around the world.

PROGRESS AND PROSPECTS

In the 1980's, however, AID has been developing new strategies for agricultural development. These strategies reflect AID's four pillars--policy dialogue, institution building, technology transfer, and the private sector--and emphasize a strong development and growth orientation, a reliance on research to develop improved technologies, and a role for extension in transferring these technologies to farmers. Within this framework, AID's extension focus is now being refined to selectively strengthen public extension systems, to apply new extension techniques, and to stimulate increased involvement by the private sector. A series of reports suggesting ways missions can strengthen their extension activities is currently being prepared by the Agricultural Technology Working Group.

Many of these themes were already emerging in projects implemented during the 1970's and early 1980's. Between 1975 and 1984, for example, more than 13% of AID's extension projects applied

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mass communication tools to disseminate extension information. More than 3% of the projects involved private sector institutions. Another three percent sought to link extension activities to Farming Systems Research initiatives. A number of the more innovative efforts will likely be replicated widely in the future. More detailed information on the most interesting projects will be provided in this study's first formal report in early fall.

It should be clear, though, that many challenges--and many opportunities--remain. AID still lacks a consistent extension strategy. AID still lacks a clearer understanding of extension's place in agricultural development. AID still has no clear approach to improving existing extension institutions or to better linking extension and research. Clearly, there will be an important role for American extensionists who can creatively apply their experience and expertise to the agricultural needs of the developing world.

or extension of the private sector

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