

PN-AAG-958

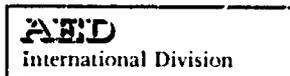
370.0186

B196

AED

Academy for Educational Development, Inc.

Academy for
Educational
Development



CASE STUDIES
in
PRIMARY AND NON-FORMAL EDUCATION
and
MANAGEMENT TRAINING

Prepared by Judith Brace and Barbara O'Grady
of
The Academy for Educational Development
for
The Education and Human Resources Division, Africa Bureau,
The U.S. Agency for International Development

September 15, 1979

This study was funded by the United States Agency for International Development
under Contract #AID/SOD/PDC-C-0191, Work Order No. 3

1414 22nd Street, N.W.
Washington, D.C. 20037
(202) 862-1900
Cable ACADED WSH 89660

INTRODUCTION

The following study is the result of intensive research into over one thousand projects in primary education, non-formal education, and mid- and low-level management training in developing countries around the world. The object of the study was to identify 30 projects--10 in each of the 3 areas-- that are potentially capable of being replicated in Africa; they will serve as models for guiding U.S. Agency for International Development (AID) field personnel in generating project designs.

To arrive at our conclusions, we studied hundreds of projects in each of the specified areas. Although the study was conducted for AID, we did not limit ourselves to AID programs. Projects in the public and private sector, conducted by UNESCO, the World Bank, UNICEF, and the Peace Corps, among others, were also evaluated. We read project papers, interim reports, and final evaluations. We interviewed people directly and indirectly connected with the projects, and incorporated their comments and suggestions.

As background for the report, we studied numerous theoretical works, case studies, and other documents that would provide us with a more complete understanding of the areas under consideration. These included such works as the working papers of the Rockefeller Foundation on Education and Training for Public Sector Management in Developing Countries; Non-formal Education in African Development by James R. Sheffield and Victor P. Diejomaoh; Education for Rural Development: Case Studies for Planners, edited by Manzoor Ahmed and Philip H. Coombs; Program of Studies in Non-Formal Education by Russell Kleis; World Bank Research Program: Abstracts of Current Studies; and UNESCO's Educational Reform and Innovations in Africa. In addition, to ensure as thorough a review as possible of programs in the three areas, we consulted program directories such as UNESCO's Training in Africa Directory.

Not all of the projects included in this study are completely successful in every aspect of design or implementation. Some have not been as successful as might have been wished because of political constraints, insufficient funds to implement them properly or to provide necessary follow-ups, or other constraints often beyond the control of project personnel. Some contain only a few components out of many that are relevant to our study. But we feel that all are noteworthy for the reasons indicated in the profiles and, therefore, merit further consideration.

This study is not intended to be definitive. There are considerably more projects worthy of attention that had to be eliminated for various reasons: Some, which at first appeared noteworthy, lacked sufficient documentation to be evaluated effectively for this study; in other cases, people connected with the projects could not be reached for consultation; other projects which were extremely successful had to be eliminated because they would be ineffective in an African setting--in some cases, they require a more highly industrialized society to succeed. However, it is hoped that the 30 projects we have selected will be a starting point for project planners anxious to learn about programs that have succeeded elsewhere and may be relevant to their purposes.

RADIO SANTA MARIA

Dominican Republic

- TARGET POPULATION:** Low-income adults in rural and urban Dominican Republic
- OBJECTIVES:** To provide accelerated primary and intermediate education, coordinated with the requirements of the Secretariat of Education, culturally adapted to the needs of the poor, at lower cost than traditional schooling
- DONORS/SPONSORS:** Largely self-supporting with some assistance from the Government of the Dominican Republic and private contributions
- DURATION:** Begun in 1970; ongoing
- COST:** Estimated program costs for an annual enrollment of 20,000 were \$486,250 in 1976

DESCRIPTION:

Educational opportunities for lower-income population, both rural and urban, in the Dominican Republic are insufficient. A majority (83 percent in 1970) of rural teachers lack professional training, physical facilities cannot keep up with the population increase, and the dropout rate is high (only 9.5 percent were finishing 6th grade in rural schools in 1972).

Radio Santa Maria (RSM) is a 10 kilowatt cultural-education radio station, operated under Catholic Church sponsorship in north-central Dominican Republic, which began with a literacy radio program in 1964. In 1970, RSM determined that there was a greater need for programs leading to certificates at the primary and intermediate levels. The programs developed rely on three major components: weekly worksheets, nightly broadcasts, and weekly Saturday sessions with a field teacher.

The six-to-eight worksheets, one for each subject, are issued weekly upon payment of a US \$.25 fee. They carry the outline of the week's broadcast material and its central theme on one side and written exercises on the other. Based on feedback from the previous year's courses new sets of worksheets are produced annually by a team of five or six teachers and an artist. Weekly enrollment records determine the number of lessons that are printed, packaged, and distributed for the next week, thus substantially reducing paper and printing costs.

Lessons for grades 1-4 are broadcast into homes throughout the country each evening between 7:00 and 9:00 p.m. with a half-hour devoted to each grade for presentation and explanation of materials. (Daytime programming includes music and non-formal education programs.) These two evening hours of RSM programming are rebroadcast by five other commercial and religious radio stations as well, extending RSM's reach nationwide.

The radio teaching is done by a male-female team who engage in a series of questions and answers. The spontaneity of the dialogue gives a friendly, personal tone to the learning sessions which place the student in an active discovery role as learner.

On Saturday mornings, radio students in groups of about 20 meet for two-hour sessions with a field teacher. Worksheets are collected, the previous week's corrected ones are returned, students' questions are answered, the central theme is discussed, and the following week's worksheets are bought. Field teachers are generally young and have at least two years' study beyond the grade level being taught. They are paid a small remuneration of US \$.15 from the weekly US \$.25 fee collected. Their training is generally in-service, consisting of printed guides accompanying the lessons, a weekly instructional radio program, and visits by a field supervisor.

RESULTS:

A random sample of RSM and conventional adult school students taking official certificate tests were compared in 1975. The study found that RSM students scored as well as or better than their counterparts from conventional classrooms. The study showed a correlation between length of RSM study and high academic achievement as well as correlation between high scores and the competency of field teachers, a fact that suggests that these teachers are necessary reinforcers of radio and print material.

Unlike traditional school systems, the unit cost per pupil is reduced as enrollment increases because there is no corresponding need for an increase in classrooms, trained teachers, or supervisory personnel. Enrollment has topped 20,000 annually.

Student fees cover 60 percent of RSM's expenditures. The remainder is covered by Government subsidies and voluntary contributions. RSM received some initial international agency funding for such investments as radio equipment and buildings

RSM has demonstrated that uniform quality education can be provided throughout the country via radio without the usual costs of buildings and personnel. The evolution of RSM from a literacy program to one providing formal (and non-formal) education for all reveals that flexibility can be an element of the radio school structure, making it adaptable to many settings.

AFRICAN PRIMARY SCIENCE PROGRAM

Ghana, Kenya, Sierra Leone

- TARGET POPULATION:** Primary school students of Anglophone Africa
- OBJECTIVES:** To research and develop new ideas for teaching science in African primary schools and to create new institutions to accomplish these goals
- DONORS/SPONSORS:** The U.S. Agency for International Development (project #0980357), the Ford Foundation, the countries of Ethiopia, Ghana, Kenya, Liberia, Nigeria, Sierra Leone, Uganda, Zambia, UNESCO, UNICEF, and the Carnegie Corporation
- DURATION:** Begun in 1965; ongoing
- COST:** USAID authorization, \$1,316,000 (1971-1975)

DESCRIPTION:

Traditional methods of primary science education in Anglophone Africa have been characterized by their emphasis upon rote memorization of facts without regard for overall conceptual understanding. The quality of primary science education could not be improved until national curricula supported by materials, methodologies, and trained staff were available.

This program was initiated in 1965 with the intention of radically altering the way in which science was traditionally taught in African Anglophone Schools. Based on a philosophy and a program developed in the U.S. by the Education Development Center in Massachusetts, the program was to utilize process-discovery teaching methods. The development of the program was to be through (1) research and development of new ideas in teaching science, (2) the production of materials for use specifically in African teacher training colleges, (3) the implementation of the program through workshops, resident teacher-training programs, a graduate-level program, and local teacher centers, and (4) the phasing out of non-African support to strengthen African institutions' capacity to develop and expand the program. To aid in achieving these goals, particularly the last, an independent education development organization, Science Education Programme for Africa (SEPA), was formed in 1970, directed and administered by Africans.

As a basis for training teachers to understand the philosophy, psychology, rationale and content of the science program, a Science Education Handbook and a teacher training Sourcebook were developed after a series of workshops in both Eastern and Western Africa. A materials development center produced an initial series of 52 prototype units for teacher use with the expectation with they would be adapted to each coun-

try's needs. Pupil reading materials are still in short supply. As they are developed, it is expected that they will contribute to a general upgrading of literacy levels.

The University of Sierra Leone's Njala Campus provides nine-month resident training sessions for teachers from various Anglophone countries, and the University of Nairobi offers the Master's program. The training of teachers in the new science-teaching techniques has required the cooperation of participating country institutions and necessitates overcoming strong teacher resistance to changing methods.

RESULTS:

Evaluation studies of the activities of SEPA have found it to be a remarkably effective institution. The staff administration is efficient and has achieved strong cooperative support among the participating countries. This structure now provides sound fiscal and management policies and practices

The production of materials and manpower is proceeding well. The quality of the Handbook and Sourcebook is high. Problems of production and distribution of the materials are yet to be resolved. In-country development of materials from the prototypes can be seen in Zambia, Ghana, and Kenya.

The Resident Training Program shows excellent promise, and its multiplier effect is beginning to be seen as trainees are being placed in key training and dissemination roles throughout various countries. The resident program at Njala is international while the Master's program at the University of Nairobi is in-country. The quality of work at Njala has been judged to be superior to that of Nairobi.

Significant evidence exists to show that participating governments are accepting the philosophy of the program in their Ministries, Institutes of Education, and universities. Every attempt is made by SEPA to utilize indigenous talent at all levels. In addition, Francophone countries have expressed interest in the SEPA philosophy and program.

PRIMARY EDUCATIONAL DEVELOPMENT

Guatemala

TARGET POPULATION: The school population of four selected primary schools in Guatemala

OBJECTIVES: To develop curriculum innovations and rural teaching methods, to test in-service rural teacher training, to study methods of supervisor training, and to improve adult education

DONORS/SPONSORS: The U.S. Agency for International Development (project #520C198), the Government of Guatemala, The World Bank, UNESCO, Inter-American Development Bank, CARE, UNICEF

DURATION: AID: 1971-1974; ongoing

COST: AID allocation: \$740,000

DESCRIPTION:

Two-thirds of Guatemala's primary-age school children live in rural areas where there is only one classroom for each 140 children. Of the 29 percent of the total school-age population that is in school, only 2 percent reach the 6th grade. Only 4 percent of the rural schools offer six grades of schooling. Of the adult population, 70 percent are illiterate.

A few years ago when Guatemala was seeking education funds from AID, IBRD, UNESCO, and IDB, the government made a detailed analysis of its educational system and devised a plan for reform. The design of this project developed out of the earlier projects. Four primary schools were designated "pilot schools." Two each were located in the Ladino (mixed Spanish and Indian) region, and two in the Indian highland areas. These four schools would serve as teaching laboratories, would provide grades one to six, and would be receiver schools for three to five satellite schools. These satellite schools were the traditional one-room, three-grade schools that are politically popular but that dissipate valuable educational resources. Very few students bothered to seek further education after going through the three grades locally available. The pilot schools hoped to reduce the dropout rate and thus the per-pupil cost.

The pilot schools serve as laboratories to introduce new techniques and as teacher-training centers. Four schools were selected as controls during the experiment. The pilot schools test project-centered instruction materials in arithmetic and the natural and social sciences, all of which are based on rural life. The staffs of each of the schools have developed supplementary textbooks for the specific regions and language of the pilot schools. Learning subjects include agriculture, health, nutrition, home economics, and industrial arts. The schools are provided with pumps, irrigation equipment, and libraries, and each school has land for a farm plot and equipment. The schools serve as learning centers for adult evening classes as well.

The pilot schools tested new methodologies, new curricula, new administrative organization, and new supervisory techniques. With a tested method of improving primary education, it is hoped that secondary education in the country will be upgraded. A number of international organizations have been involved in loans and grants for improvement at this educational level, but all aid organizations are in agreement that to improve secondary education, the quality of the student entering from primary schools has to be improved. To do this means good primary teachers, good curriculum and teaching aids, and good teacher supervision.

RESULTS:

Evaluation of the project showed that the output of the pilot schools' sixth grade increased 40 percent since 1969. There were higher promotion rates in pilot schools than in the control schools for all grades (88.5 percent v. 55 percent) and higher enrollment in grades four to six in the pilot schools than the control (46.5 percent v. 35 percent). In 28 major comparisons between the pilot and control schools, the pilot schools scored significantly higher in 21 grade or subject areas.

Community parents in the pilot areas, under supervision of pilot school technicians, increased their corn and bean production 400 percent in 1973 through use of recommended fertilizers. Parents are participating in increasing numbers in school programs and are making use of the industrial arts shop facilities.

In the pilot schools a ratio has been reached of 40 students to 1 teacher, and in the area of practical teaching, the schools' agricultural projects are now self-financing.

Detailed curricula for each of six primary grades have now been developed and tested. A new loan-funded normal school is using these curricula and teaching methods developed in the pilot schools. For the first time, screening procedures for incoming teachers have been initiated. Out of 700 teacher candidates, 180 were chosen and trained at the pilot schools. Teacher-training techniques included videotape microteaching.

Significant improvements have been achieved in the quality and appropriateness of education for the rural primary school population.

THE SOCIAL WORK AND RESEARCH CENTRE'S PRIMARY EDUCATION PROGRAM

India

TARGET POPULATION: Primary school children in three rural villages

OBJECTIVES: To test an innovative teaching approach to providing basic education to meet the needs of rural children

DONORS/SPONSORS: India's National Centre for Education Research and Training

DURATION: 1975-1978

COST: Unavailable

DESCRIPTION:

The Social Work and Research Centre (SWRC) is an indigenous organization whose basic aim is to strengthen the control that villagers have over their own lives. To do this they seek ways to integrate development activities, to involve the community in these activities, and to incorporate relevant and cost-effective educational methodologies at the community level.

The traditional classroom in India teaches subjects by rote, presents a curriculum unrelated to the daily lives of the students, and gives neither students nor community a chance to be a part of the teaching process. Students are taught by teachers who are not community residents, and the dropout rate is high.

As part of their efforts to make schooling more relevant, SWRC launched an experiment in primary education in the schools of three isolated rural villages. The experiment included three major changes from traditional schooling. The schools' regular teachers were reassigned to other areas and were replaced by six young local recruits (two farmers, two priests, a widow, and an unemployed youth) with no teacher training. They were given a brief training session at the SWRC campus, followed by weekly workshops throughout the school year with SWRC staff and visiting specialists. These were open workshops, in which issues and problems were discussed freely and critically, new ideas were proposed, and performance evaluated.

In order to make the schools as accessible as possible to the learners, the school hours were adjusted: younger students and those who were free attended a morning shift (8 a.m. to noon) while those who worked during the day attended the evening session (7 to 10 p.m.). This later schedule was especially suited to former dropouts who were now working.

While the language and numeracy skills objectives of the official syllabus were retained, the SWRC program designers made substantial changes

in both the teaching methodologies and the curriculum, in line with the goals of the larger program, to provide students with more relevant and interesting experiences grounded in their own social, economic, and physical environment. The school was a "learning center" that had its own garden and animals; the village itself was considered an extension of the school. Villagers with special skills were drawn into the school as "teachers." Subjects were taught through projects, group discussion, field trips, and observation, and each learning center developed its own teaching materials and aids.

RESULTS:

From the beginning, evaluation was part of the experiment. Technical help for this was provided by the Regional College of Education. By the end of the second year, the number of 6-to-11 year olds attending school had risen substantially, and the dropout rate had declined. These students were then tested against their counterparts in two traditional schools of the region. Scores for reading and listening comprehension were considerably higher in the experimental schools. The results were the same with environmental studies. While the difference was not as considerable, arithmetic scores were also higher in the experimental schools.

The feelings of the community toward their experimental schools varied. Lower-caste villagers were more supportive than the upper castes. There was some lack of cooperation from the village leaders because of the schools' direct approach to the parents rather than to the leaders. As the experiment progressed, community support grew, with parents of one village, for example, offering free labor to dig wells for the schools.

As in many efforts of this sort, the care and maintenance of the school gardens created problems. In the SWRC case, the watering and other routine chores when the school was closed presented difficulties. (In other instances, fruits of the labors are often not democratically distributed, or children of lower class are expected to do all the work.) In the same way, the care of the animals and the school schedule did not coincide, and there were labor and cost problems.

The overall assessment of the primary program was that it had successfully shown that a radically different approach to rural schooling was possible but that it requires the dedicated attention of workers who believe in the ability of rural residents to solve their problems.

THE RADIO MATHEMATICS PROJECT

Nicaragua

TARGET POPULATION: Primary school children in Nicaragua

OBJECTIVES: To test the feasibility of using radio as the delivery medium for a cost-effective instructional system for teaching elementary mathematics

DONORS/SPONSORS: The U.S. Agency for International Development (project #9310569) and the Government of Nicaragua

DURATION: 1973-1979

COST: AID allocation: \$2,624,000

DESCRIPTION:

School failure and attrition increase the per-student cost of educational services. Since failure in mathematics is a primary cause of failure in school, improved instructional programs leading to improved student performance are required to increase the cost-effectiveness of the educational system.

Research seems to indicate that children in less developed countries perform less well in school subjects than their peers in developed countries. Some of this gap can be attributed to a lack of qualified teachers, particularly in rural areas. In addition, the curriculum in primary schools is often unsuited to the basic literacy/numeracy needs of rural children. The Radio Mathematics Project is an attempt to provide a quality mathematics curriculum that focuses on basic skills in a relevant context.

This project was an innovative effort to bring together two types of technology--radio and systematic instructional design--to provide effective instruction in primary school mathematics in a developing country. Stanford University's Institute for Mathematical Studies in the Social Sciences, with the close cooperation of the Nicaraguan Ministry of Education, planned a program that would develop new curricula, utilize performance data to revise and improve the lessons, and analyze and evaluate the mathematical skills and concepts taught in the lesson

Each radio math lesson consists of a 30-minute broadcast portion and a post-broadcast session conducted by the classroom teacher using a printed guide. The radio lessons are fast-paced and are designed as a dialogue between the radio and the students to elicit four to five written or spoken responses per minute from the children. The pacing is planned to give the illusion that the radio is listening to the children. Based on the principle that knowledge of results enhances learning, the correct answer is given after each exercise. The lessons

are broken down into two-to-four minute segments which are either instructional or entertaining through use of songs, riddles, jokes, tongue twisters, and poems.

The radio program is designed to carry the major burden of instruction and therefore can be used by teachers of varying abilities. A good teacher can enhance the program, but a poor teacher cannot diminish it. Following the broadcast, the teachers continue the mathematics lesson using suggested activities from the guide. First-grade pupils use worksheets, but lessons for later grades are designed to be worked in pupils' notebooks, thus reducing production costs.

RESULTS:

Because the Radio Mathematics Project has a built-in evaluation and feedback process, the effectiveness of each week's lessons are tested, adjustments made in the curriculum plan, and additional instruction given when needed. With this kind of close monitoring of learning achievements, year-end achievement tests show that when compared with a control group, students of the Radio Mathematics Project scored approximately 25% higher.

An instructional radio program such as this does not necessarily reduce costs as it is an adjunct to the regular school program. It does not replace teachers, and class size is not increased. Rather it is the quality and effectiveness of the teaching that is improved.

It is theoretically feasible to transfer a mathematics curriculum from one country to another, given the stability of the subject from country to country. The RMP work has given two possible ways of adapting their findings, either by adapting the lesson materials, or adapting the radio production methods. Additionally, the RMP design principles may be applied to other subjects as well as to non-formal education.

AID's Development Support Bureau has initiated a new project (1979) which will test these findings in the teaching of language arts. This project will be implemented in East Africa, and focus on the teaching of English via radio.

PRIMARY EDUCATION

Pakistan

TARGET POPULATION: Primary-school students and teachers

OBJECTIVES: To increase primary-school enrollments, especially for girls and for rural children, and to improve the quality of teaching

DONORS/SPONSORS: U.S. Agency for International Development (project #3910410) and the Government of Pakistan

DURATION: 1977-1981

COST: \$7 million

DESCRIPTION:

Between 1947 and 1977, Pakistan's student body increased from one million students studying to be functionaries in the colonial administration to seven million learning skills needed for the economic and social development of the country. Education at the primary level, in particular, has numerous shortcomings, including a great discrepancy between educational opportunities for boys and girls and for urban and rural children (in each case the latter has the lower opportunity), a high dropout rate, and poorly trained teachers in rural schools. The main cause of these problems has been a historic disinterest in promoting primary education. This, plus the high population growth which will result in 24 million children of primary-school age by the year 2000, resulted in the Government's plan to promote the concept of universal education, with a projected increase in school enrollment of boys from 70 percent to 90 percent and of girls from 30 percent to 50 percent by 1983.

The project aims to solve the educational problems by means of the following strategies:

- Increasing access to primary schools, especially for girls and rural poverty groups, by providing school facilities and materials and by overcoming parental resistance to enrollment by providing more female teachers to improve school-public relations.
- Reducing dropout and repetition through improved facilities, materials, and instruction; through supervision (to reduce teacher absenteeism); and through working with parents and community leaders to encourage their support.
- Improving quality of instruction through in-service teacher training in methods of teaching and classroom management.

- Reducing education costs by hiring lower-cost teachers and increasing class size.

The most important elements of the project are teacher training and supervision. Intensive and recurrent in-service training is intended to improve teacher effectiveness; improved supervision of teachers, provided by primary-school supervisors, is intended to result in less teacher absenteeism, improved teacher performance, and closer relationships among schools, parents, and community. "Assistant teachers"--those not fully entitled to the designation of teacher--who are willing to work in rural areas near their homes and therefore have a good understanding of local needs and a good rapport with parents and pupils, would be recruited to assist in the classrooms.

The teacher training calls for annual and bi-monthly recurrent training during the four years of the project:

- Annual: Two to three weeks of intensive training on general topics conducted by trainers of the staff of provincial teacher-training institutes.
- Bi-monthly: Two to three days of training on common teaching problems, conducted by local supervisors.

Training content includes methods of teaching major subjects, understanding of children's learning habits, management of multigrade classes, parent/community relationships, and methods of adapting curriculum to the pupils' social and physical environment.

RESULTS:

Despite the ambitious goals of the project, it is expected to benefit more than 4,000 schools, 10,000 teachers, over 400,000 presently enrolled students and 500,000 not yet enrolled, over 70 percent of whom are female. Approximately 7 to 8 percent of the nation's primary schools, teachers, and enrolled students would be covered.

In addition to increasing enrollment and improving the quality of education for primary-school children, the project is also expected to provide adult education classes in subjects requested by the local population and to promote community interest in primary education. It will also provide a forum for teacher interaction on professional problems, as well as a central point for feedback from the local level to the higher levels of the Education Ministry.

PROJECT IMPACT/PROYEK PAMONG

Philippines, Indonesia

- TARGET POPULATION:** Philippine and Indonesian primary-school-age children
- OBJECTIVES:** To make primary education available to all children as the school-age population continues to rise, to use existing teachers more effectively, and to reduce the dropout rate and the per-student cost by improving the educational delivery system
- DONORS/SPONSORS:** The South East Asian Ministers of Education Organization, through INNOTECH, the Canadian International Development and Research Center, the Governments of the Philippines and Indonesia
- DURATION:** Begun in 1974; ongoing
- COST:** IDRC allocations, \$972,000 over six years

DESCRIPTION:

It has been estimated that half of the children of Southeast Asia do not complete primary school. To keep up with the burgeoning school-age population with more classrooms, teachers, and materials would place an impossible burden on already inadequate educational budgets. Innovative alternative solutions are being sought.

The South East Asian Ministers of Education Organization (SEAMEO) assigned their Regional Center for Educational Innovation and Technology (INNOTECH) the task of "development of an effective and economical delivery system for mass primary education." INNOTECH came up with the concept of Instructional Management by Parents, Community, and Teachers (IMPACT); two experimental sites were chosen: Cebu Island in the Philippines, and Solo, Indonesia. Management is a key word in the system: the teacher's role is changed from instructor to manager of a variety of instructional elements, including community volunteers, self-instructional learning modules, remedial classes led by older students, peer-teaching/learning, parental monitoring, and the overseeing of up to four times as many pupils as in a conventional setting.

Of these various elements, the self-instructional modules are the core. The standard Government syllabus is not changed but is rewritten in the form of modules, self-instructional booklets that take the student from a pre-test, through the concept to be learned, to a post-test.

Schools become community learning centers; classrooms are replaced by "learning kiosks" built by community parents, in which small groups of pupils gather to work on a subject module with their peers, moving to another kiosk with other students to work on another module. Older pupils rotate the responsibilities of instructing the lower grades in reading and writing, testing them in comprehension and simple mathematics, and using flash cards and flipcharts as instructional tools. Essential to the process is a keeper of records, for logging modules as they are taken and returned, for scoring and recording tests taken, and for keeping track of flash cards, flipcharts, and other equipment. This person frees the former teacher, now an instructional supervisor, to spend full time on monitoring academic progress of the students.

The community learning center and its flexible study modules enable a student to return to the system at any time if circumstances have caused an absence. In the same way, adults or older youth can re-enter the system by simply checking out the programmed modules, taking the tests, and moving along through the grades at their own speed.

RESULTS:

Module learning was introduced in grades four and five initially; for students finishing traditional third grade, it was a difficult transition. The most difficult aspect of Project IMPACT/PAMONG was the training of the students to "learn to learn." Giving students carefully designed, simple modules was not enough. The children first had to learn the skills to deal with the modules. Module writers agree that it would have been an easier task to begin with the first grade and move along producing modules for these students through the grades.

Results from this experiment in programmed learning, however, have been promising enough to cause its expansion in both of the test countries to additional locations. The Standardized Official Test in the Philippines and the BP3K test in Indonesia showed higher test scores in mathematics for the IMPACT/PAMONG students than for conventionally schooled students. An IMPACT student, on the average, scored 125 to a non-IMPACT student's 100; a PAMONG student's score, on the average, was 107 to a non-PAMONG score of 100. Other subjects showed an even higher average score for the experimental students.

Three kinds of costs should be considered in implementing projects of this sort: those for initial research, those of adaptation to local curricula, and operating costs. In the Philippines, a savings of at least 15 percent in operating costs has been estimated.

AID is initiating a replication of the IMPACT/PAMONG system in Liberia (project #6690130, \$4.4 million, 1978-1982), to determine if these innovative mechanisms can be adapted to an African setting.

THE BUNUMBU EXPERIMENT: PRIMARY EDUCATION FOR RURAL DEVELOPMENT

Sierra Leone

- TARGET POPULATION:** Teacher-trainees at the Bunumbu Teachers College
- OBJECTIVES:** To develop the capacity within teacher-training colleges to provide in-service training for rural educational extension services, to develop a country-wide network of community education centers (formerly primary schools) for both formal and non-formal education for youth and adults, and to develop a new primary curriculum with a rural bias.
- DONORS/SPONSORS:** The Government of Sierra Leone, UNDP, UNESCO
- DURATION:** Begun in 1974; ongoing
- COST:** Unavailable

DESCRIPTION:

Sierra Leone, as is the case in many developing countries, faces a situation in which 90 percent of the population lives and works in rural, agricultural areas that produce only 30 percent of the country's GNP. A quarter of the country's food is imported, urban migration of uneducated rural youth is reaching serious levels, and the country must devise ways in which to improve and expand rural services. As in many other developing countries, Sierra Leone has decided to use educational innovations to attack its socio-cultural problems. These innovations are being tested in the Bunumbu experiment.

A coordinated effort has gone into the development of the Bunumbu experiment, involving the Ministry of Education, the University of Sierra Leone's Institute of Education, a National Advisory Committee, Bunumbu Teachers College, and regional and local school administrators.

The Ministry of Education appointed a National Advisory Committee that will advise the College council and the Ministry on the implementation of the project. The University's Institute of Education has been given the responsibility to develop new curricula and examinations for the Teachers Colleges and curricula for the primary schools. Bunumbu Teachers College was chosen for the implementation of the experiment after a feasibility study. It is the only one of Sierra Leone's teachers colleges located in a remote rural area. Twenty primary schools in the region adjacent to Bunumbu College were chosen as pilot schools to be transformed into community schools. This structure provides the support for a new curriculum for community schools in rural areas and for a new kind of teacher who, with the new curriculum and new training, will become a change agent and facili-

tator, extending his or her teaching from the classrooms into the community to reach out-of-school youth and adults. Life-long education is a prime goal of the experiment, with strong links forged between the teacher-trainee, teachers, students, community members, and support agencies.

The goal of life-long education is a new one and is seen as essential for involving community members in improving their environment and agricultural production. Through this project, it is expected that teachers, parents, and students alike will understand the necessity of school-community integration in order to achieve national educational objectives. Wise use must be made of all government services, and it is to be the role of the teacher to make effective use of the various agencies to assist in the community development activities.

To address this expanded role for teachers, Bunumbu College has added courses in community development, adult education, agriculture, and home economics. The College intends to expand its enrollment to accommodate 500 trainees who will be taking courses and practice-teaching in the pilot schools as well. Those teachers already in the pilot community schools will receive in-service training to update and upgrade their professional and leadership skills. Their in-service training will include a survey of community resources to identify skilled community craftsmen to serve as resource persons to the schools.

Both in-service teachers and teacher trainees will be expected to assist the curriculum planners by providing feedback on what techniques work and what do not. The planners who are not working in the field must be made aware of the realities of the situation and adjust their production accordingly. To provide this feedback, workshops on curriculum are held at the College with the participation of teachers and planners.

RESULTS:

This ambitious project is just beginning to get full-scale application. The first graduates of Bunumbu College were being assigned in 1979 and will put into practice the new techniques and approaches they have learned. Review missions of the Government, UNDP, and UNESCO have found that the activities are being implemented according to schedule. The teachers in the pilot schools are positive about the workshops for curriculum planning and are working well with the new materials. Curriculum planners are receiving back suggestions for improvement and change in the materials, as well as proposals for new materials, and are implementing these changes.

The project faces problems with insufficient teaching staff, inadequate salaries, and time-lag in meeting contractual obligations. However, project planners are hopeful that these can be overcome.

IN-SERVICE PRIMARY TEACHER TRAINING PROJECT

Swaziland

- TARGET POPULATION:** 1200 primary teachers
- OBJECTIVES:** To upgrade under-qualified teachers in the school system and to introduce trainees to modern methods that would stimulate change within and beyond the classroom
- DONORS/SPONSORS:** The Government of Swaziland, UNDP, UNICEF, UNESCO, and the British Ministry of Overseas Development
- DURATION:** Begun in 1971; ongoing
- COST:** Unavailable

DESCRIPTION:

In 1971, Swaziland was experiencing an enormous increase in demand for primary-school education. There were not enough qualified teachers available to meet this demand, and as a result, as is the case in many areas of the world, unqualified teachers are employed and poorly qualified teachers are given more and more responsibility. Rather than limit enrollment, the Government of Swaziland determined to provide in-service training to upgrade its teachers. Botswana had developed a program of in-service training using correspondence, and this experience provided the basis for the Swaziland project.

The training, lasting three years, includes three six-week courses in college, eight correspondence assignments in each of five subjects for each of the three years, and tutorial supervision of the trainees in their schools. Initially, it was hoped that radio teaching might be provided. However, radio reception in much of the country is poor, so materials that were to be broadcast were printed for distribution.

The six-week college courses are scheduled throughout the year; the numbers that can attend are limited by accommodation facilities. Two courses of 50 students each are held simultaneously. Students return for the courses after about a year - the average length of time it takes to complete the correspondence material to be done in the interim.

The course work covers a small amount of educational theory and a large amount of the practical aspects such as teaching aids (games, models, etc.) and techniques (microteaching). The Piagetian stages of child development are followed in the development of materials. Most of the trainees work in groups, follow through the experiments that they will present to their pupils, take model field trips for social studies presentations, and practice-teach in an associated primary school.

The correspondence assignments were developed by tutors provided by the British Ministry of Overseas Development. There are 24 assignments in each of the core subjects -- English, education, mathematics, science, and social studies -- and they adhere closely to the material and methods presented in the college courses. Each assignment has a worksheet to be filled in and returned to the correspondence office for correction. To handle this volume of worksheets, part-time staff is employed to log the sheets, correct them, record the scores, and return the sheets. These assignments and worksheets constitute, in some cases, the only subject reference the teacher has. The correspondence office is responsible for the typing and duplication of the materials, their assembly, and distribution.

Tutorial visits are made to observe the teachers and provide them with help, suggestions, and encouragement. Because of the size of the country, three to four schools can be visited in a day trip. UNICEF provides the vehicles for this component of the program.

The new approach of the in-service is "child-centered," active rather than passive. The lecture-type teaching methods of the past are discarded in favor of individual discovery, group learning, empirical and action methods, and emphasis on creating a learning environment through pictures, models, experiments, charts, and specimens in the classrooms.

RESULTS:

One of the hoped-for results of the project was to influence those teachers who were not trainees. Evidence is accumulating that "child-centered" activities are being adopted in many classrooms based on observation of the trainees' methods. Teachers from these classrooms are requesting materials and help from the visiting tutors to improve their own skills.

There is a high level of appreciation on the part of the trainees for the kind of attention and concern being shown them in this project. Not all trainees are embracing the new methods equally, but they are all affected to some extent by the changes.

As a result of this upgrading effort for teachers, the quality of the primary curriculum that they must use has come under critical scrutiny, with the result that a major curriculum reform has begun.

THE KWAMSISI PROJECT

Tanzania

- TARGET POPULATION:** Primary-school-age village children
- OBJECTIVES:** To explore ways to link education to rural community life to develop relevant school curriculum, and provide pre-service training for student teachers
- DONORS/SPONSORS:** The Government of Tanzania, UNICEF, UNESCO
- DURATION:** Begun in 1971; ongoing
- COST:** Unavailable

DESCRIPTION:

In 1974 the primary-school enrollment in Tanzania was some 1,200,000 children. For the majority of these, primary schools are not a preparation for secondary school; they are the end of formal schooling. Since 96 percent of Tanzania's population is rural, the education provided the country's children should ensure that they will learn the necessary skills and acquire the kind of knowledge to enable them to live and work successfully in their communities.

Under the aegis of MTUU (Mpango/Tanzania/UNICEF/UNESCO), a nationwide educational reform program, a pilot project was instituted in the village of Kwamsisi to test a rural-focused curriculum that would link the community with the school. The experiment got underway with meetings held with village committees and parents to sound out their wishes, gain their confidence, and enlist their participation in the planning stages. The villagers' strong views were incorporated into the objectives of the program. As developed, the curriculum covers four areas: literacy and numeracy, citizenship, self-help and cultural activities, and community studies. The first area is consistent with the national program, and the same amount of school time is devoted to it as in other schools. The other three areas of study are intended to be tied to the local environment--the needs of the community, what the child can contribute, social equality, the running of the school--so that both the children and members of the community work together. Some of the studies are pre-vocational and include crafts, farming methods, and building techniques; others include health and sanitation education, music and dance, and locally-based science.

An integral part of the pilot experiment is the collaboration of the nearby Korogwe College of National Education that has responsibility for the project design and development. Students from the College participate in the school-community projects, bringing expertise and guidance, and from this experience they assist in the development of school syllabi. Teachers from the school attend in-service training courses at the college, where village members can also attend courses in crafts, agriculture, and health.

A day-care center for younger children has evolved from the school program; it provides supervision, play, music, and a free midday meal, which is also provided to the primary school children. School uniforms are free as well, provided to each school child by the village. School and community, with help from the College, have initiated a communal farm, a corn-storage unit, and poultry raising. A village workshop, conceived and designed by the school children, is under construction to provide school leavers with artisan skills. A villager is being trained at a vocational school and will return to the village to be the tutor for the workshop.

RESULTS:

The project has had no formal evaluation, but a number of indicators point to positive changes. The school and the village now consider themselves extensions of one another. The villagers feel it is their school and concern themselves with its projects and courses of study. Other villages have come to study the integration and have asked for assistance in a similar undertaking. The Work Bank is studying the project as a possible model for other areas. The enrollment of village children seems close to approaching 100 percent, a fact which seems to indicate a high level of village acceptance of the school and its goals.

Two of the elements of the success of the project lie in the availability of land to carry out projects related to farming and sanitation, and in the political policy of the country which allows communities a decision-making role.

Another feature which supports this project is the incorporation of change within the educational system. Students are able to sit for the government's primary-school leavers' certificate exam, and are able to compete for a place in secondary school because the school's curriculum ensures that children receive adequate instruction in the major language/literacy/numeracy areas.

This small experiment would indicate that positive changes can be made in villagers' attitudes toward their local school and that they can be made to feel an integral part of the learning system.

LDC INSTITUTION INVOLVEMENT IN NON-FORMAL EDUCATION

Afghanistan, Costa Rica, Lesotho

TARGET POPULATION: Three institutions in developing countries

OBJECTIVES: To enable LDC institutions to develop the capacity to provide assistance to their governments for the development of non-formal education programs

DONORS/SPONSORS: The Governments of Afghanistan, Costa Rica, and Lesotho with the U.S. Agency for International Development (project #9311031)

DURATION: 1977-1980

COST: AID allocation: \$290,000

DESCRIPTION:

Between 1960 and 1970, school enrollment throughout the world almost doubled. In the developing world, however, fewer than half the children who begin first grade finish third grade. The dropout and repeater rates indicate that it takes from 12 to 17 student years to produce one sixth-grade graduate. Unless the developing countries utilize more efficient, innovative educational systems, they will be less and less able to meet their national needs. The search for new learning systems has caused widespread interest in non-formal education (NFE). Most non-formal promotion and implementation is being provided as outside aid to LDCs, a situation which does not contribute to developing institutional capabilities in these countries.

This project aims to provide a small amount of grant money (\$30,000 to each of three institutions for three years) to institutions in three LDCs to enable them to build the capacity to plan, implement, and evaluate NFE programs, to initiate an action or research program in NFE, to establish NFE as an integral part of the Government's educational planning, and to form linkages between U.S. and other countries' NFE institutions. The institutions selected for grants are in Afghanistan, Costa Rica, and Lesotho.

Kabul University Research Centre (KURC) does research on national problems and issues to facilitate the development process. It was awarded the grant to build its institutional capabilities to assist the development of NFE activities in Afghanistan. The four elements covered by the grant are (1) a survey of NFE activities in the country on a province-by-province basis; (2) a detailed assessment of up to six potentially replicable NFE projects--particularly their cost-effectiveness; (3) a series of seminars and workshops for university and Ministry personnel and the NFE community; (4) participation in NFE workshops outside the country to develop the NFE network and to share and learn from NFE experiences.

In Costa Rica the grant was awarded to the Costa Rican Government's Office of Planning (OFIPLAN). OFIPLAN has contracted with a personnel training firm to develop achievement motivation techniques to increase achievement-oriented behaviors among the marginal populations that NFE aims to reach. Findings of the training firm will be used to orient key people of the government to new methodologies, and to train researchers to prepare and evaluate courses in motivation. A team of trainers will be recruited and trained in achievement motivation, and a one-year demonstration training program will be designed for staff of the Ministries of Public Health and Human Promotion. With a large number of trainers trained in this area of achievement motivation, the Costa Rican government expects to increase popular participation in government programs, enhancing the programs' effectiveness. In addition, key personnel from other Central American countries will be given training.

The grant to the Lesotho Distance Teaching Centre (LDTTC) is to (1) undertake a research activity in comparative learning effects and cost-effectiveness; (2) provide a research component to at least one other project; (3) expand its activities to other NFE organizations in Lesotho; and (4) upgrade staff through training integrated into the other three activities.

RESULTS:

The KURC has completed its inventory of NFE activities. This is the first such survey ever made. It sponsored a seminar in the summer of 1979 at which a number of NFE proposals were presented to 50 seminar participants. Of these the participants chose four to be undertaken as case studies: (1) non-formal education for poor-house and reformatory inmates; (2) a handicrafts and local industry training effort; (3) a NFE program of the Afghan Family Guidance Association; (4) a literacy campaign. The KURC activities are being implemented as planned, with good cooperation and interest on the part of all concerned.

The program with OFIPLAN got underway later than the other two programs. The consultant's training program is being designed, in close cooperation with the Costa Ricans, and will shortly begin the implementation stage.

The activities of the LDTTC are well underway. The initial research activity was to study the effectiveness of a crocheting booklet as used for individual and for group instruction. This research was published in Learning From a Booklet. The results have been important in influencing the materials distribution strategy of the LDTTC. The use of the booklets in groups gave important stimulation to the groups themselves, beyond the instructional aspects. The LDTTC is working well with other organizations and is becoming a region-wide resource for NFE activities.

THE BOTSWANA BRIGADES

Botswana

- TARGET POPULATION:** Botswana youth of secondary school age
- OBJECTIVES:** To provide relevant training for employment in rural Botswana, to create a community resource, to produce goods and services not otherwise available
- DONORS/SPONSORS:** Generally self-supporting, with some support from international organizations
- DURATION:** Begun in 1965; ongoing
- COST:** Unavailable

DESCRIPTION:

Schooling in southern Africa is a selection process in which exclusion is an accepted procedure. The system was not built to absorb the majority but to limit their access to it. The results are people educated in areas for which there is no demand and lack of trained people in areas where there is need.

The Botswana Brigades were envisioned as a combination of the social process of education--i.e., training within the environment where work is to be done--and the academic process of the classroom. In the 12 different centers where Brigades now exist, training is provided at various levels in 20 different skills. A Brigade Center is a production unit where 80 percent of the time is devoted to on-the-job training and the other 20 percent to academic studies.

In the classroom, Brigade students are taught mathematics, science, English, and cultural and development studies. Each of these subjects is based on the kinds of practical experience likely to be encountered on the vocational side of the learning process.

The Brigades are independent of one another and are expected to be able to cover their recurring costs within five years of starting. Costs are recovered by payment for the services that each Brigade provides. Brigades exist for builders, stonemasons, carpenters, electrical workers, engineers, textile workers, farmers, and others. New Brigades are determined by the market for services. The Textile Brigade's focus is specifically on training girls in spinning, weaving, dying, and sewing. Products of a Brigade such as this must find a market, since the Brigade does not offer a locally-consumable service as the Carpenter Brigade does. Brigades look for innovative production techniques and resources to lower the costs of their products and services, thus applying the principles of appropriate technology.

The nature of the Brigade determines its ability to easily cover its operating costs. The more elaborate the equipment required, the more difficult to amortize the costs. Part of the training process is to make the trainees partners in the management and decision-making of their own Brigades so that they have these skills for cooperative work when they leave the Brigades.

RESULTS:

Studies made of the Brigades have pointed out a number of problem areas. Some of these concern the difficulty of finding qualified and dedicated instructors; others concern the problems of management of the Brigades so as to maintain a financially viable operation. A major problem that seems to trouble all Brigade trainees is the lack of a certificate--a document that carries value in the job marketplace. Secondary education is generally regarded as a passport out of the life of rural poverty, and to be denied the passport causes serious distress.

In addition, the Farmers' Brigades have found it difficult to achieve a sense of pride in their activities. As in all African countries, it is proving very difficult to induce young people to consider farming a desirable career. A combination of government land grants to farming Brigades for cooperative activities, and model farm settlements with attainable goals may prove attractive to more youth.

The Builders' Brigades seem to have the potential to support themselves, and have generally received the support of their communities. The Textile Brigades turn out high quality work in rugs, handbags, printed cloth, etc. There is no problem in covering costs as long as the output can be sold.

Despite some problems, this approach to secondary education has attracted a good deal of attention both within and outside of the country, and the program is becoming institutionalized within the Ministry of Education. The Brigades are developing ties with technical colleges and training institutes in Botswana, giving promise of managerial and instructional support from these quarters.

A Brigade system has strong appeal where countries and communities see the value of cooperative enterprise and social reform.

ACCION CULTURAL POPULAR (ACPO)

Colombia

TARGET POPULATION: Rural Colombian campesinos

OBJECTIVE: To provide rural communities with basic education that will improve their lives

DONORS/SPONSORS: Primarily self-supporting. U.S. Agency for International Development study project (project #5980558)

DURATION: Begun in 1947; ongoing

COST: Annual expenses in 1972: \$4.3 million

DESCRIPTION:

The rural population of Colombia is about half of the total population. Problems that beset farm families are low income, low farm production, difficult terrain with poor communications, inequitable land distribution, few educational opportunities, and few job possibilities. Many rural dwellers migrate as farm workers; others move to the cities seeking increased opportunities.

ACPO began as a radio school, Radio Sutatenza, in 1947. It was founded by a Catholic cleric who conceived the idea of reaching rural farmers with educational information over the air. From this first experimental stage, ACPO has grown into an institution with a staff of close to 1000 that develops radio programming, correspondence courses, and a weekly newspaper, and operates a printing press. The basic focus, however, is still to upgrade the quality of rural life by providing campesinos with the necessary knowledge to improve and market agricultural productions, achieve better health, hygiene, and nutrition, begin a savings program, and utilize credit and technical resources, among other things.

Radio Sutatenza is now Colombia's largest network, covering the entire geographic area of the country. It broadcasts 19 hours a day, 6 hours of which are structured courses. The radio school operates on a group basis: students meet in the house of one of their members, and classes are led by a volunteer with somewhat more education. Three kinds of educational courses are offered. The Basic Course offers literacy and numeracy 30 minutes a day, 6 days a week. The completion of this course (90 lessons) will take the student into the Progressive Course which constitutes the core programming and 60 percent of all enrollment. Three times each day its one-hour broadcast covers health, literacy, mathematics, economy, and culture. By popular demand, ACPO began in 1970 to provide a three-year course to prepare primary school dropouts to take the Government's exam for primary school leavers.

Other programming of Radio Sutatenza is non-formal, carrying agricultural messages, advice for the home, and entertainment and news.

The publishing activities of ACPO are an adjunct to the radio program; they provide textbooks for the courses and a special farmers' library series for campesinos. Although these books are technical, they are written at the most basic level for easy comprehension by the campesino. Much of the printing equipment has been donated, and the press is an income-generating activity available to the public. A weekly newspaper covers the same material that has been broadcast in the radio school. This paper has the largest rural circulation in the country.

RESULTS:

The fact that ACPO has survived and has continued to grow over the last 32 years to such a degree indicates that it must be providing the kinds of educational services needed by rural Colombians. It has shown that a mix of media is more effective than radio alone to teach and reinforce the teaching. The coordination of these media is crucial to the effectiveness of the teaching, i.e., the same message must be transmitted by all the media. ACPO found that when a local organization was involved in motivating, coordinating, and reinforcing development efforts, the program was more effective.

Although the motivating community force was often the local priest, ACPO has attempted to increase the lay control and influence in the organization.

ACPO is very much a top-down organization, and, as a result, has come under some criticism. Its ability to be self-supporting, however, seems to derive from the kind of fiscal management possible with central control. Apparently, the effectiveness of ACPO programs is not tested, and audience feed-back to alter or improve programming is missing.

In 1976, Radio Sutatenza was reaching more than 156,000 enrolled students and was receiving some 6000 letters per month from its listeners. ACPO's publishing house was producing some 600,000 student texts and 300,000 of the simple "farmers' library" books per year.

At least 15 other Spanish-speaking countries have modeled educational radio programs after this Colombian prototype. AID has provided funds for a two-year study of ACPO's operations to develop guidelines for effective utilization of radiophonic schools. The study will also evaluate ACPO as an educational model and make recommendations for the application of ACPO methodologies elsewhere.

THE NON-FORMAL EDUCATION PROJECT

Ecuador

TARGET POPULATION: Campesinos of rural Ecuador

OBJECTIVES: To extend education beyond the formal framework, to develop new methodologies, techniques and materials for non-formal education, and to raise the consciousness and self-esteem of the rural poor

DONORS/SPONSORS: The U.E. Agency for International Development (project #518007502) and the Government of Ecuador

DURATION: 1972-1976

COST: Total cost ca. \$500,000

DESCRIPTION:

The gap between the need for education at all levels and the ability of the Government of Ecuador to provide it is substantial. Classrooms, teachers, and materials are all in short supply. Nearly half of the primary school children have dropped out by the second grade, and allocations for adult education are barely half of 1 percent. Most of the country's illiterates live in rural areas, where opportunities for their education are almost non-existent.

The Government of Ecuador and the University of Massachusetts undertook an experiment, with AID funding, to develop a new approach to non-formal education, based on Freirean concepts of "consciousness raising." The methodologies included the training of facilitators from the communities to be reached, production of new materials designed to provide basic literacy/numeracy skills as well as to enhance the self-image of long-oppressed campesinos, the testing of these materials, and, finally, the dissemination of the materials to other communities and institutions.

The project attempted to combine the processes of community development and education in such a way that they were mutually reinforcing. The educational tools provided a measure of self-assurance that supported efforts to improve the living environment. Decisions regarding what conditions should be changed were the prerogative of those affected, and the confidence to make those decisions was the result of an educating process.

The initial activity of the project was to select and train 24 campesinos from 6 rural communities as facilitators for five weeks. These community teachers returned to their communities to begin projects and classes and in time began training interested residents of neighboring communities as facilitators. Project activities and classes aimed at providing the campesino with the tools for education and for improvement of the community.

The materials developed were designed to be inexpensive, fun, and easily reproducible in any community, and included games that reinforced numeracy skills, such as number bingo, fotonovelas, and puppets. Workshops were held to acquaint various Ecuadorian organizations and agencies with the materials and their potential for adaptation.

The project encouraged a series of campesino-produced cassette tapes which were used on Radio Mensaje, one of three Ecuadorian radio schools. The cassettes were made in the field on tape recorders provided to 40 of the radio school centers. The resulting "Farmers' Message" program was an information exchange and feedback device which reinforced a sense of community worth.

RESULTS:

Although the project area was a small one, the results have significant implications. Facilitators from a community, trained for a short period and returned to the community with little or no remuneration to divert their allegiance, proved remarkably effective and dedicated. Since the end of the University of Massachusetts involvement, the number of participating communities has grown to almost 500 with corresponding increases in community-action projects.

Facilitators became adept at dealing with the bureaucracy and at devising ways to involve more of the community. Women, for example, began to be trained as facilitators and to develop women's programs.

The materials were highly successful in almost all cases. Many were also adopted by family education programs, student volunteers, army barracks, community educators in Indian communities, and night-school students. Tests given users of some of the games such as letter Rummy showed significant increase in skills, which could suggest applicability in other settings. An additional advantage of all the materials is their simplicity and low cost.

An AID evaluation states that "the project has invented ideas and materials, successfully diffused them throughout particular social systems, and has initiated positive consequences of social change. The project developed a model of operation which should be continued and emulated by other programs throughout the world."

THE MAPONG VALLEY SOCIAL LABORATORY

Ghana

- TARGET POPULATION:** The rural inhabitants of the Mapong Valley of Ghana
- OBJECTIVES:** To increase the participation of rural populations in planning and implementing community development activities and to incorporate innovative techniques in agricultural production and basic living needs
- DONORS/SPONSORS:** The Ghana Rural Reconstruction Movement, the International Institute of Rural Reconstruction (IIRR), the U.S. Agency for International Development (project #6980387), and the Government of Ghana
- DURATION:** Began in 1973; ongoing
- COST:** IIRR allocation: \$175,000; AID allocation: \$1,100,000

DESCRIPTION:

Ghana lacks the mechanisms for disseminating simple technical information on health, agricultural production, and economic development. As a result, rural dwellers are deprived of the means to expand their skills and lack awareness of their potential for improving their lives.

The philosophy of the International Institute of Rural Reconstruction is based on the concept that rural problems are poverty, ignorance, disease, and civic inertia. Each of these is related to the other, so that resolutions of the problems must also be interrelated. The Ghana Rural Reconstruction Movement (GhRRM) began under the auspices of the IIRR in 1972. A site survey was made and the Mapong Valley was chosen for a social laboratory because it was considered representative of rural Ghana. Following selection and training of field personnel, projects were begun in the areas of health, livelihood (farm crops, livestock breeding, and rural industries), cooperatives, and community development (water, roads, markets). The initial focus was on health, on the premise that unless the farm society was healthy, other improvements could not follow. The GhRRM structure includes a Centre Director, a field coordinator, department heads, technical officers, and "propagators." These last are grass-roots, multi-purpose workers who work with the farmers and bring in specialized assistance when needed.

Agricultural experiments were implemented to show farmers alternate cropping methods. Model farm plots were cultivated, and farmers were requested to allocate a small portion of their own plots for experiments with fertilizers and produce. Livestock production techniques were introduced on an experimental basis; the poultry raising innovations were especially popular.

The cooperative effort is seen as the core of the livelihood activities and includes co-ops for production, marketing, and the consumer. Through the co-ops, it is expected that middlemen and money-lenders can be eliminated.

The education aspects of the Mapong Valley Project include formal and non-formal education, culture, and sports. Literacy for adults, school attendance for all children of school age, and pre-school day-care centers for the youngest are all goals of the project. The education "propagators" are nominated by the villages, and selection is made on the basis of examinations.

Goals in the area of health improvement include better water, waste disposal, ventilation for rooms, and nutrition. Water storage receptacles and handwashing are encouraged. Water-sealed latrines were introduced, window louvres were developed for room ventilation, and supplementary foods are being distributed.

RESULTS:

Modest changes had been made in cropping and fertilizing methods, with almost 60 percent of the farmers claiming GhRRM's influence for the change. Poultry raising increased by over 83 percent, and is ranked as the most successful livestock venture. It is being given special attention by the GhRRM and is scheduled to become the main income-generating activity of the region. The quality of the poultry has been substantially upgraded by breeding, and egg and poultry-feed production are offshoots of this activity. Sheep were not previously raised in the area but have now been introduced.

Cooperatives have not been particularly successful to date, but survey respondents planned to join one at a future date. GhRRM plans to exert its influence to strengthen this area.

Cottage industries--particularly basket weaving--are having a modest success. Those women who are engaged in some sort of craft are able to market their production.

The education activities are lagging behind: literacy classes were held in only one village, with an enrollment of 20 persons. Answers to survey questions revealed the need for more school buildings and a middle and a secondary school for the region.

In the area of health, the GhRRM has introduced health centers in seven villages, has a visiting health team, and is training health nurses. A number of environmental health activities relating to water, latrines, and refuse disposal have been initiated, all of which point to an increase in awareness of health problems and possibilities for alleviating them.

The survey shows that respondents were most enthusiastic about the livelihood and health programs, and their future hopes were for more social services and amenities such as good drinking water, markets, schools, clinics, and roads.

BASIC VILLAGE EDUCATION

Guatemala

TARGET POPULATION: Rural campesinos of Guatemala's Spanish-speaking southeastern region and Quiche-speaking highlands

OBJECTIVES: To determine the effectiveness of selected combinations of communications media in development programs

DONORS/SPONSORS: The Agency for International Development (project #5980551) and the Government of Guatemala

DURATION: 1973-1978

COST: AID allocation: \$1,732,000

DESCRIPTION:

The rural subsistence farmer of Guatemala has little or no access to regular sources of information with which he can improve the quality of his life, his agricultural production, or the health of his family. Illiteracy is the rule, land holdings are minimal, and per capita income is estimated to be \$320/year.

The Basic Village Education experiment was designed to test and evaluate the impact of a mix of communications applications in a development education framework. Agriculture was chosen as the subject of the communication effort because it seemed to provide the most readily judged results of any behavioral changes. The program was to assume an illiterate audience and was to test results in two culturally and geographically distinct regions. In addition, the program was to train a cadre of program planners and production technicians in modern communications technology.

The communications treatments to be tested were (1) the use of agricultural radio messages alone, (2) radio messages combined with a community "monitor," (3) radio messages combined with a community monitor and an agronomist, and (4) a monitor alone. Control groups were selected in regions receiving no educational services at all.

Two radio stations, one in each test area, were installed, and broadcast eight hours a day. The greater portion of the day's broadcasting consisted of music, entertainment, and items of local interest. Some air time was devoted to community education programs relating to health and family matters. The core programming was agricultural and was aired early in the morning and in the afternoon. It included agricultural spot announcement, a farm "magazine," interviews with experts, a radio novel with an agricultural theme, planting news, and local farming conditions.

Monitors were chosen from the rural communities of the test sites and were given initial training in project purposes and procedures. Training by the agronomist continued throughout the project life. Each monitor had responsibility for four to five communities. The monitors introduced the educational material to be broadcast during the week's radio forums and were provided with audio cassettes, flipcharts, posters, and other reinforcing materials. Monitors visited the farmers, held discussions, and provided feedback to the project designers on program content, major farmer concerns, and usefulness of educational material. This feedback was crucial to the improvement of the message design.

Agronomists provided technical assistance in three test areas. They assisted the monitors, attended radio forum meetings, maintained demonstration farm plots, identified local production problems, advised farmers, trained monitors, and were the feedback channel to project headquarters.

RESULTS:

The results of the BVE experiment were carefully analyzed. It was found that agricultural production increased in each of the treatment areas, a fact which demonstrated that farmers were willing to try new production methods recommended by the BVE program. The Government of Guatemala, as a result of the success of the BVE project, plans to expand its non-formal education programs using the findings of the project.

On examination of communication effectiveness, radio was identified as the single most important information source. Its importance seemed to diminish over time, while friends and neighbors of the community, as well as the monitor, gained in importance as disseminators of information. Where the monitor operated alone, there was evidence of rapid change in practices by the second year, with the monitor's impact steadily increasing. The agronomist and the monitor were essential for message development and feedback, as well as for personalizing the radio messages.

Radio seems to be a most effective change medium when it is used in combination with carefully developed message presentation and feedback. The presentation must be developed by content specialists who are in regular contact with the target population. Radio was shown to be effective in reaching marginal populations such as these farmers. A local person to reinforce the message directed to this population is highly desirable, supported when possible, by a technician.

These finds are now being disseminated through workshops in other areas of Latin America so that project planners might be made aware of how the results might be incorporated into their own projects in health, nutrition, and other community development areas.

NON-FORMAL EDUCATION PROJECT: TOTOTO-KILEMBA

Kenya, The Philippines

TARGET POPULATION: Rural women in 12 villages in Kenya and the Philippines

OBJECTIVES: To examine the problems of women's education in rural areas and find new ways of solving these problems.

DONORS/SPONSORS: World Education, Inc., the National Christian Council of Kenya, and the Philippines Rural Reconstruction Movement

DURATION: 1975-1978

COST: Unavailable

DESCRIPTION:

Six villages in each country were chosen to participate in this educational program that attempted to involve the women, through various strategies, in defining their own needs. Before undertaking any action, project organizers interviewed directors of other educational programs for women to understand the problems involved.

The education philosophy underlying the project is the "self-actualizing method," in which emphasis is placed on the learner rather than the teacher both in learning and decision making. Program personnel began by conducting a KAP (knowledge, attitudes, practice) survey, interviewing women on a random sample basis. In addition to a formal questionnaire, interviewers used tape recorders to record stories and anecdotes related by the women. This preliminary survey provided basic social and economic information as well as teaching material for the field teams. The survey revealed that the women were most concerned about economic problems, although they also voiced concerns about health problems and early marriage.

Program personnel, recruited mostly from local development agencies, formed workshops to determine course content and teaching materials. The teaching materials, including simple games, posters, and taped problem dramas--innovative material that did not require reading skills, that encouraged group discussions, decisions and action--were then tested in learning sessions. Each session served as a needs assessment for the subsequent one--i.e., the total curriculum was not planned in advance: lessons were planned one at a time. Such a method allowed the focus of sessions to be changed as new needs were identified. Classroom tapes dealt with such subjects as pig-raising, dressmaking, budgeting, nutrition, health care, and income generation. Projects included building a nursery school and a bakery, and selling firewood, eggs, and bread.

RESULTS:

At the midpoint evaluation, 94 percent of the women surveyed had positive reactions to the group sessions, and 76 percent could outline specific skills learned as a result of these sessions. Over three-fourths of the responses supported the notion that success and learning new things are intertwined. As a result of the project, a majority of the women felt there was the potential for increasing their income.

The teaching aids and discussions appear to have had a significant effect on the women, enabling them to decide and act. The most effective aids were those which presented a problem which the group was experiencing, addressed a decision that rested with the group, or allowed members to compare their situation with that of others. Aids were least successful when their meaning was unclear, e.g., when a chicken looked scrawny but not sick, or when the facilitator imposed his or her idea of a solution.

In general, the project revealed the following:

- Learners should be involved in all stages of the project.
- Curriculum should not be based on a long-range plan but developed from one session to the next.
- Learners should determine location and time of sessions.
- Local women should be selected and trained.
- Interested, cooperative village chiefs are important for the project's success.

LESOTHO DISTANCE TEACHING CENTRE

Lesotho

- TARGET POPULATION:** Primarily rural residents of Lesotho
- OBJECTIVES:** To provide basic rural education to the people of Lesotho, to provide correspondence courses for out-of-school adults, and to act as a service agency for other organizations that provide non-formal education
- DONORS/SPONSORS:** The government of Lesotho, the World Bank, International Extension College, UNICEF, U.S. Agency for International Development (project #9311031), and other international donors.
- DURATION:** Begun in 1974; ongoing
- COST:** AID allocation: \$90,000 for three years, 1977-1980

DESCRIPTION:

Lesotho is faced with large numbers of people who have been unable to get into secondary school or who have dropped out. Growing numbers of these were resorting to private correspondence colleges whose courses were poorly designed and irrelevant, and whose costs increased the outward flow of income from the country.

After a number of attempts to address the situation, the Ministry of Education requested that the International Extension College draw up plans for a national extension college in Lesotho. These plans have become what is now the Lesotho Distance Teaching Centre (LDTc). The LDTc tries to provide for four kinds of educational needs. The first is for basic rural education. Booklets on practical topics such as cooking, vegetable growing, first aid, and child care are provided in Lesotho language. Subjects for the booklets are decided upon in consultation with the audience for whom they are intended.

A second group served by the LDTc are former students who wish to continue their education through correspondence. These students may work toward a certificate at the Junior and "O" levels, taking such courses as bookkeeping and commerce, agricultural science, and mathematics. They are reached through correspondence lessons, radio programs, and tutorials which include weekend courses.

A third constituency of the LDTc is organizations throughout Lesotho interested in producing educational materials. The Centre has developed its expertise in audience-needs surveys, planning, designing, and producing appropriate material to the point where it can provide these services to other agencies and organizations. The LDTc has designed, tested, and printed

booklets, posters, pamphlets, and leaflets. It has run seminars and training courses for field workers. In cooperation with the Interministerial Committee on Road Safety, the Center produced two posters and ten radio spots aimed at educating children in road safety.

A literacy and numeracy program is a fourth feature of the LDTc activities. The Centre is developing simply written materials to teach reading, writing, and simple mathematics. A pilot project to test these materials is underway. An interesting feature of the project is that prisoners all over the country are being taught with these materials. Group leaders are recruited from community organizations such as a church or women's club, and are trained in the use of the materials by LDTc staff.

The LDTc has a built-in research and evaluation unit whose aim is to provide the data to guide policy and materials design, to research community needs and attitudes, to pre-test both formal and non-formal educational materials, and to evaluate the performance of the programs.

RESULTS:

The Centre is being given semi-autonomous status within the Ministry of Education in recognition of its contribution to national development. Because the Centre has been able to demonstrate that non-formal distance teaching works, other organizations have been willing to try the techniques.

LDTc has been able to print and disseminate many thousands of booklets on subjects of interest to the rural population. For example, 30,000 cookbooks were produced in 1975, and an additional 5,000 revised copies were printed in 1977. The booklets are sold at a cost aimed at recouping some of the printing expenses.

The Centre has provided formal courses to more than 800 persons between the ages of 18 and 50. Those people receiving basic rural education from the Centre number more than 20,000. The target audience of prisoners and herdboys receiving literacy and numeracy training is also over 20,000.

The concept of distance teaching was a new one in Africa when the LDTc program got underway. The staff which initially numbered 6 has grown to more than 50. Projects are numerous and varied, and ways are continuously sought to improve and expand the reach and services of the Centre. The components of the LDTc's activities are interrelated, with research and findings from one program supporting planning and development in another. The results of the studies and research activities have been published to share the information with any interested planning organization.

NON-FORMAL TRAINING PROGRAM

Paraguay

TARGET POPULATION: Guarani-speaking rural population of Ita district

OBJECTIVES: To test various methods of low-cost training for the rural Paraguayan population and to enable the National Apprenticeship Service to conduct successful training projects for rural illiterate and semi-literate adults

DONORS/SPONSORS: The Government of Paraguay, the Government of Spain, the World Bank, the U.S. Agency for International Development (project #5250601)

DURATION: AID: 1975-1979; ongoing

COST: AID allocation: \$1,519,000

DESCRIPTION:

Paraguay's population of some 2,500,000 is remarkably stable. The rural population constitutes about 63 percent of the total. Formal schooling is divided into three lower and three upper grades. The dropout rate in lower schools is so high that there are few upper-grade schools. With a 50 percent dropout rate and a 20 percent repeater rate, there is a school population of 70 percent that is not achieving functional literacy. This project is aimed at developing low-cost educational alternatives for rural development.

The Ministry of Justice and Labor (MOJL) has established a training unit, the National Apprenticeship Service (SNPP), that traditionally provides training to literate participants. The MOJL now wants to reach the large semi-literate and illiterate population of the country, and, with other government agencies, requested this project. The project is to establish within the SNPP a non-formal unit with capabilities to train the rural audience in areas of home management, environmental sanitation, basic agriculture, small-scale livestock, crafts, and small-farm improvement and management. The project is to bring change to a pilot population (Ita district) through tested learning methodologies and instructional materials and then to institutionalize the findings throughout the country.

The initial expectations were to produce eight trainers and four materials production specialists, to establish six pilot training programs in six content areas, to prepare materials and test them in the field, and to study the budgeting and institutional requirements of the project for expansion implications.

The SNPP production unit's materials for literates are being adapted, with assistance from non-formal education specialists, for the target population. The production unit uses a photographer, an illustrator, and a printer to communicate with their Guarani-speaking illiterate audience. Their materials may be photos

or line drawings, cassette tapes to be used with flip charts, slides, and posters. Handout materials are created for each content area with a pictorial demonstration of the activity's message. For these materials, the project is drawing upon the experience gained from the Basic Village Education and the Ecuador Non-Formal Education Projects.

The training program uses an instructional systems process. In this, training needs assessment and identification of resources are followed by the planning and development of validated instructional materials to ensure the learning of taught skills: diagnosis, objectives, strategies, implementation, and evaluation.

Special attention is given to the needs and training of rural women. Women have received less public education and contribute less to the economy than men. The non-formal training program will strive to improve the situation.

RESULTS:

An evaluation conducted in 1977 indicated that the initial goal of six pilot training programs in six content areas was too ambitious, and this goal was reduced to four; target goal of eight trainers was reduced from eight to six. Other than this, satisfactory progress toward all goals was noted.

The non-formal education unit carried out a total of four education campaigns in four different areas, training 397 participants in the pilot area. These trainees have been informally training other rural adults. The project gives pre-, post-, and retention tests to participants; to date, learning scores have been "remarkably high."

The SNPP materials production staff has produced 26 tested training programs, with more in production, and the training staff has trained 20 extension agents of the Ministry of Agriculture to train other trainees.

The pilot activities have demonstrated that non-formal education methods are an effective means to provide instruction to non-literate rural audiences in Paraguay. The SNPP is now planning to expand non-formal education to other areas of the country with government funding.

AUDIO CASSETTE LISTENING FORUMS

Tanzania

TARGET POPULATION: Tanzanian women of Majengo and Kimundo villages

OBJECTIVES: To provide a program to enable women to appreciate the importance of their role and to encourage them to implement self-determined plans for improved health and nutrition

DONORS/SPONSORS: The U.S. Agency for International Development's Women in Development Office (project #906000.1)

DURATION: One year (1978); 1979-1982

COST: \$40,000; \$453,500

DESCRIPTION:

Tanzania's national policy of self-reliance carries the message that both men and women are socially and economically equal and bear equal responsibility for their country's development. In 1972, there was a renewal of emphasis on the people's participation in decentralization. The goal was to stimulate a dialogue between the "people" and the directing bodies. The importance of women was stressed as being essential to the maintenance of the family and to nation-building, while in reality women remained uninvolved in the development process.

The Audio Cassette Listening Forums (ACLF) Project evolved from the premise that women have been a neglected force in development, and that given respect, support, and learning tools, they could create an environment responsive to their needs. To test this assumption, the project planners selected two project sites and two control villages. Majengo, a recently established village, is a poor community with relatively few resources. Kimundo is an established community, blessed with fertile land and good climate, with ongoing community projects. The primary objective was to involve project participants in the planning, implementation, and evaluation of a project that centered on needs they had determined. A secondary objective was to use audio cassettes and other simple media in a development education program.

Five group leaders were chosen by each village and trained in a five-day seminar in Freirean group dynamics and leadership techniques. They then conducted a needs survey in their villages, interviewed women, and organized groups of participants, who through group discussions determined the priorities to be implemented as projects. The problems that concerned the participants were lack of water, poor sanitation, drunkenness, poor nutrition, and lack of children's clothing.

Audio cassette tapes were prepared by group leaders, district health workers, and others to provide information that could be played by the women in health

clinics in their communities. Other tapes sparked group discussions through problem-posing. The cassette recorders were used because their tapes are reusable, the user need not be literate, and the target audience can control the communication process and give immediate feedback.

In Kimundo the two areas of concern selected for projects were latrines and child care. As a result of the women's decision and activities, the village council began to organize latrine building and improvement activities. To meet their needs regarding child care, the women initiated a series of activities including nutrition discussions, planting of home gardens and citrus trees, raising chickens, and making sweaters for their children.

In Majengo, basic survival was the primary concern, but a specific problem addressed was drunkenness among the village men. As discussions continued, it became apparent that the root problem was the dissipation of family income on beer, and the women's lack of discretionary income. From this discovery a plan of action arose. The women initiated two cooperative farms as a source of income; they planned and built a cooperative store to sell commodities at government prices. These activities put the women in direct competition with the village storekeepers, one of whom was a village leader. The successful resolution of this challenge gave a great boost to the women's sense of their potential to change their community.

RESULTS:

Evaluation of the project through pre-testing, post-testing, and seminars demonstrated that attitude changes were considerable. The women's positive attitudes toward their environment and toward their ability to improve their situation increased significantly in the experiment villages; no change was shown in the control villages. The project planners concluded that this type of program would have the greatest impact on communities in which no prior consciousness-raising has taken place.

The audio cassettes proved both appropriate and effective in that they enabled more people to be reached by extension personnel, local production of the tapes meant local control, illiterate women with no technical skills were able to handle the technology, and the recorders were reliable and sturdy. Over 80 percent of the participants of both villages found the tapes useful. However, unlike the Kimundo women, the Majengo participants felt that the audio cassettes were not essential to the process and recommended that future projects dispense with the technology. It was their conviction that the group discussion and decision making were the most important and replicable techniques.

In 1979, AID funded a three-year expansion of the project that will apply and test the earlier findings. In the first year the program will be extended to eight villages. Four will use audio cassettes, and four will not. Eight more villages will be brought into the program by the final year. There will be a vigorous evaluation of the effectiveness of the audio cassettes and a series of four training seminars per year. A handbook, based on the extended findings, will be produced.

COMILLA PROJECT

Bangladesh

- TARGET POPULATION:** Approximately 200,000 rural people in the administrative unit of Comilla
- OBJECTIVES:** To use non-formal education, surplus labor, and technical innovations to raise agricultural productivity and to implement the rural development policy in Pakistan
- DONORS/SPONSORS:** Academy for Rural Development (Bangladesh), The Ford Foundation, and the International Cooperative Administration (now the U.S. Agency for International Development)
- DURATION:** Begun in 1959; ongoing
- COST:** Unavailable

DESCRIPTION:

The Comilla Project was designed by the national government's Academy for Rural Development. The project had a number of components, including a cooperative pilot project, a rural works program, a rural education program, a women's program, and the Thana Training and Development Center. The cooperative pilot project involved setting up cooperative societies in villages on a voluntary membership basis, which were later organized into a network having a central federation. The Thana Training and Development Center provided training for villagers/teachers. The Center also provided offices at a single location for government officials in agricultural and other rural development work at the thana levels.

One purpose of the cooperatives established by the Academy was to develop an agricultural extension education system. Change agents perceived the need to introduce new agricultural technology to increase production, but also realized the problem of disseminating this information and persuading villages to adopt the techniques.

An innovative system of communication was developed to deal with the problem. A network was established to link persons with technical information and village farmers. Low-level government agricultural officials, the sources of information, taught village representatives, who in turn taught villagers. Members of village cooperatives chose the village representatives. Each representative then chose a "model farmer" who spent one day a week at the Thana Training and Development Center learning about new agricultural technology. He reported about the week's lesson at weekly meetings of his village cooperative society. Communication was thus facilitated: The village farmer could explain things to his fellow farmers in terms they understood; they, in turn, were inclined to discuss problems connected with new procedures with a person of their own status.

Meetings were held weekly to ensure that the uneducated villager/teacher had sufficient instruction in learning the new techniques. Meetings at the training center served to put the villager/teacher into a new social system--the system of the change agency--and to provide him with a new reference group--the other model farmers in his class.

The use of a villager/teacher, combined with weekly village meetings and classes at the training center, provided an effective feedback system for the change agents who could revise the program if necessary.

RESULTS:

The Comilla pilot projects had an unprecedented impact on the government's policies and rural development programs. The model of the Thana Training and Development Center, for example, was immediately adopted for a national rural development program. The Academy's role in the national programs was to assist government planners in training large numbers of officers and public leaders involved in the programs.

The pilot projects also had a substantial impact on the cooperative villages. Cooperatives accumulated large amounts of savings capital and borrowed large sums for investment in agriculture. Between 1963 and 1970 the per capita gross income of cooperative farmers increased at an annual rate of 22 percent; in a neighboring thana with no cooperatives, the rate of increase was only 13 percent.

Much of the success of the project depended on the network system and the management procedures relegated to the villagers. They chose their own chairman, manager, and model farmer, and sent him to the change agency for training. After training--and if he was convinced--he became a change agent and returned to his own group to act upon it.

PAN-AFRICAN INSTITUTE FOR DEVELOPMENT (PAID)

Cameroon

TARGET POPULATION: Government employees from sub-Saharan Africa

OBJECTIVES: To train middle-level manpower to design, implement, and manage development programs at regional and local levels

DONORS/SPONSORS: The U.S. Agency for International Development (project #6250521); the European Economic Community, European Development Fund; various European and African governments; private donors

DURATION: 1971-1978

COST: Total USAID payments ca. \$730,000

DESCRIPTION:

In 1962 at an inter-African colloquium of administrators, members of youth movements, trade unions, and family and social organizations, the need was recognized for a training institute for middle-level development personnel. The following year, mainly through the efforts of a Swiss economist, the International Association of the Pan-African Institute for Development was established in Geneva. By 1965, the first of two schools in Cameroon was operating. (PAID also operates a center in Ouagadougou, Upper Volta.)

The objective of the two schools--a French-speaking one at Douala and an English-speaking one at Buea--was to train government employees from all over sub-Saharan Africa to fill middle-level management positions in public and private development programs. Ideally, they would help bridge the gap between top-level, university-educated administrators who plan development programs and the people whose lives they affect.

At Douala, candidates for admission were required to have a high school diploma; preference was given to those who had further training in agricultural school, or field work in extension, cooperatives, community development, etc. Student nominations came from government ministries, private development organizations, agricultural societies, or chambers of commerce. A nominating body had to guarantee that it would hire a student when he or she completed training.

Students were taught to identify the development needs of an area and to formulate plans to meet those needs. They lived with village families for a time, identified problems during field exercises, and then discussed the problems in the classroom. The first year of training at Douala focused primarily on economics, demographics, and sociology; the second year offered three areas of

specialization: community development and adult education; regional development; and organization and management of cooperatives. Between the first and second year, students were expected to write monographs about their experiences; at the end of the second year, they wrote memoirs about a specific development problem with proposed solutions.

Students at the Institute took exams regularly. They received grades for exams, field work, participation, and conduct. Instructors noted their weaknesses and suggested corrective measures. Final grades were based on two years' work. Those who passed were awarded diplomas, equivalent in many of the participating countries to a B.A. degree plus one year of specialization.

The training program at Buea was patterned after that at Douala with some exceptions. The school offered only one year of training (the countries involved felt they could not spare their staff for more than one year). Its entrance requirements were also higher than Douala's: participants were middle-level managers in responsible positions, already trained in their fields, and somewhat experienced--usually in training supervisory-level field staff of extension personnel in institutions or in the field. Thus, the training at Buea was expected to have a multiplier effect: those who instructed the trainers were being upgraded.

The training philosophy at both schools was to teach students to observe, theorize, and then propose solutions.

RESULTS:

The Institute developed an innovative and apparently successful method of developing perceptive and creative administrators through its observe-theorize-propose techniques. Students demonstrated increased critical ability and leadership tendencies. Early follow-up studies of the Douala program indicated that a high percentage of alumni had acquired positions at the local, regional, or departmental level rather than at the upper-echelon level. PAID's recognizing the need for such middle-level personnel and then training them innovatively and successfully is an important contribution both to non-formal education and development in Africa. In addition, the program's field phases provided an action-oriented focus often neglected at the university level.

From 1964 to the end of the 1976 academic year, PAID trained 830 middle-level development agents and organized courses and seminars for about 740 participants. (Figures include the center in Upper Volta.)

(N.B. Anyone considering the establishment of such an institute should consider one disadvantage: since no one country has political jurisdiction over such an institution, financial responsibility cannot be designated.)

ECONOMIC AND RURAL DEVELOPMENT (ERDM) PROJECT

Ghana

- TARGET POPULATION:** District- and regional-level officials and district council members
- OBJECTIVES:** To strengthen the capacity of the Government of Ghana to plan and implement regional and rural development activities in such a way as to foster popular participation in them, and to increase the incomes and productivity of the rural poor both on and off the farm
- DONORS/SPONSORS:** U.S. Agency for International Development (project #6410007), Government of Ghana, and the Canadian International Development Agency (CIDA)
- DURATION:** 1977-1982
- COST:** Estimated U.S. life-of-project cost: \$3.0 million

DESCRIPTION:

The Government of Ghana is committed to involving rural people in development through district-level planning and implementation systems. It is therefore necessary to establish training courses for district- and regional-level officials and council members in planning, coordination, and management.

To carry out the project, a team of three Ghanaian trainers/consultants, experienced in administration, regional planning, and rural development has been established in each of nine regions of the country. Their responsibilities include:

- Conducting annual training seminars and workshops in planning, coordination, and management skills for regional and district council members, district chief executives, and representatives of decentralized ministries at the regional and district levels.
- Continually assessing and redesigning the training programs to better meet local needs.

Training sites are located at the regional capitals where facilities are available for residential-type training. Seminar-workshops for the districts are three weeks long; district council members attend only one week of the program; district-level officers attend for three weeks.

One product of the training sessions is a district development plan which will feed into the annual budget cycle.

A project coordinating committee has been established at the national level to provide policy guidance and interministerial coordination. A project secretariat, provided by the Ministry of Economic Planning, directs the project at the national level, selects regional trainers, supervises program development, monitors and evaluates programs, and provides logistics support for trainers.

RESULTS:

Since the project is still in its early stages, there has been no formal evaluation. However it appears to be successful, and therefore, certain aspects of it should be considered.

The district council is important in this project. By reaching down to the smaller villages through its development committees, it helps stimulate local action; it also reaches upward to link the community with development agencies and their programs.

As a result of the six-month training program for trainers, 25 graduates are now posted as full-time professional management trainers. A system has also been established to update course content and teaching methodology with five trained specialists.

Anticipated project results include the following:

- Establishment of ongoing institutional capacity within each region to provide training and consultancy services to the districts.
- Nine functioning training teams (one in each region).
- Decreased incidence of error in budget estimates submitted by the districts.
- Program rather than project budgets.
- More efficient utilization of the resources available to the districts.
- District councils evaluating local needs and setting priorities for their attainment.
- Larger projects under the control of district councils.
- Increased interaction among decentralized ministries at district levels.
- Increased utilization of consultancy services.

GENERAL PARTICIPANT TRAINING

Indonesia

TARGET POPULATION: Middle- and high-level management and technical personnel from government and the private sector

OBJECTIVES: To create a manpower pool of self-sufficient managerial and technical personnel to address development problems, particularly poverty, unemployment, and inequity

DONORS/SPONSORS: U.S. Agency for International Development (project #4970183) and the Government of Indonesia

DURATION: AID: 1976-1979

COST: AID allocation: \$13,675

DESCRIPTION:

One of Indonesia's most critical needs is the development of human resources. A cadre of well-trained middle-management and high-level technical and professional personnel are needed in government, higher education, and the private sector, especially in the areas of rural development, food and nutrition, health, economics, and general public and fiscal administration. This project was a very successful attempt at fulfilling those needs (it continues training activities of a previous general participant training project #9900179).

One important aspect of successful project management was the selection of training candidates. The Government of Indonesia conducted various manpower requirement analyses to assist in candidate selection. Both GOI and USAID/Indonesia attempted to select candidates who could not be programmed under existing technical assistance projects and whose training would be needed in future projects. Training was conducted both in-country and out-of-country in the U.S. and at the Asian Management Institute in Manila. Although the project provided assistance to more than 20 GOI agencies and some private-sector organizations, the majority of participants were drawn from the Departments of Agriculture, Education and Culture, Finance, Health, and Public Works and Electric Power. Primary areas of concentration were agriculture, education, public works, and industry.

Since one of the requirements for participation in the training program was competency in English, USAID/Indonesia conducted English-language testing for the candidates, provided teachers and texts when necessary, and equipped a language laboratory in the bi-national Center's "Lembaga Indonesia-Amerika" in Djakarta.

A follow-up program was conducted to ensure that participants were in the positions for which they were trained. The follow-up program also provided participants with technical literature, a newsletter, and a directory of the returned participants, as well as reunions and seminars.

RESULTS:

According to evaluation documents, this project is "one of the most successful human resources development projects in the history of AID." Of the 1,469 candidates sent for training, 1,357 completed their programs and returned to Indonesia. Approximately 95 percent are using their training; many are now leaders in Indonesian universities and government agencies.

The only major problem of the project was the English language competency requirement: Nearly all participants had to undertake intensive language training for from one to six months.

The project taught the planners a number of lessons:

- Such a general participant training project should be broad and flexible; it should be kept free from over-planning.
- Training should be tailored to host country development plans and should respond to needs not covered by other technical assistance projects.
- Such general training programs help generate interest in future development projects as well as provide a cadre of trained personnel to assist in designing and implementing new projects.
- Such general training programs should be coordinated with a central contact point (in the case of Indonesia, with the Cabinet Secretariat).

Because of the success of this training program, a follow-on program is now being implemented, with plans for a follow-on to that.

MAASAI RURAL TRAINING CENTRE (MRTC)

Kenya

- TARGET POPULATION:** To provide education, training, and income-generating activities for about 410,000 Maasai people
- OBJECTIVES:** Maasai people in the Kajiado District
- DONORS/SPONSORS:** Mainly self-supporting (65 percent) with additional assistance from donor agencies and the Kenyan Ministry of Agriculture
- DURATION:** Begun in 1961; ongoing
- COST:** \$85,000 annual operating budget

DESCRIPTION:

This church-initiated project (organizationally, the centre is an extension of the diocese of Nairobi) began in 1961 as a result of a severe drought that caused heavy losses of cattle, the main source of wealth for the Maasai. To avoid similar disasters in the future, and to improve the status of the people in general, the Maasai elders requested training from church missionaries in the area. Buildings in the area of a famine relief center in Isinya became the center of operations.

Three types of formal training activities are carried on at the Centre:

- A two-year village polytechnical program in masonry, carpentry, welding/metal work, and vehicle mechanics. The government provides the instructors.
- A one-to-two week course monthly in subjects which the Training Activity Committee, in consultation with the Kenyan Government, decides are needed. The Government provides the instructors.
- A one-year course, initiated in 1973, in range management, the only course of this type in Kenya. The aim of the course is to train Maasai with primary-school certification in modern ranching practices and techniques so that they will be able to assume major responsibilities on ranches. Most of the teaching staff are from the Ministry of Agriculture. Over 66 percent of the graduates have gone on to work in various group and individual ranches. Others have joined the Ministry of Agriculture, Veterinary Service Division.

The course consists of three terms of thirteen weeks each with a three-week break between terms. Training emphasizes range management, animal health, farm management, and animal production. Students take periodical examinations to

determine their progress in the classroom and in the field. A certificate is awarded upon completion of the course, based chiefly on the student's practical performance since this is the true test of the student's understanding and knowledge.

The Isinya ranch, where the course is offered, also has a store managed by graduates of the range management course. They are thus prepared not only to provide Maasai ranches with all the supplies they need, but also to give instructions and information on their correct use. The store is a major source of income for the centre and covers its training expenses.

Major activities of the Centre are controlled by project activity committees composed of the local Maasai chief and headman, various district officers, community and church representatives, and appropriate local experts. These committees meet several times a year to discuss problems and progress. In addition to their role as monitors and problem-solvers, the committees help generate new ideas and strategies to implement those ideas.

Each major activity also has its own manager who is in charge of the day-to-day operations and is responsible for carrying out the recommendations of the project activity committee.

A majority--about 70 percent--of the Centre's employees are Maasai who occupy middle-level positions. Training programs are attempting to upgrade the skills of these Maasai so that they will be able to assume positions of more responsibility.

RESULTS:

It is difficult to measure the success of the project quantitatively because of the many activities. Probably 1,000 Maasai within a 50-mile radius of Isinya are involved in the Centre's activities each year. About 100 Kenyans who are not Maasai attend courses at the Centre each year. Much of the project's success has depended on the willingness of the foreign (English) project manager to work closely with local committees.

The project has demonstrated an ability to work with the Government in a constructive fashion. It has also demonstrated that the Maasai are willing to participate in training activities related to their way of life. The training activities, however, need follow-up, a factor which has presented the Centre with a serious problem. Many of the former ranch management students, for example, work on group ranches hundreds of miles from Isinya. It is thus extremely difficult for Isinya to provide them with assistance. A follow-up correspondence system is perhaps one solution.

It should further be noted for future projects of this type that it has been very difficult to involve women and girls in these activities because of the reluctance of Maasai men to allow their wives and daughters to participate in activities which might take them away from their traditional duties.

CAMPELINO PARATECHNICIAN TRAINING

Peru

TARGET POPULATION: Campesinos from cooperatives in Cajamarca and Tumbes

OBJECTIVES: To provide assistance to CENCIRA in training farmers in technical and managerial skills to better manage their cooperative farm enterprises and to serve as a channel of communication between the management and small-farmer membership of socioeconomic groupings known as Associative Enterprises (AE).

DONORS/SPONSORS: U.S. Agency for International Development (project #5270143) and the Center for Research and Training in Agrarian Reform (CENCIRA)

DURATION: Begun in 1971; ongoing (AID involvement: 1976 and 1977)

COST: Total: \$803,000; USAID: \$250,000

DESCRIPTION:

Begun in 1971, this project is the culmination of a search for a model for training farmer-beneficiaries of the Agrarian Reform. As a result of the wide-sweeping Reform, hacienda owners/managers were removed and frequently replaced by inexperienced and untrained laborers. Many of the almost 1,000 cooperative farm enterprises (comprised of approximately 250,000 small farmers and their families) suffered from lack of managerial/administrative skills and failure of communication between government-placed Associative Enterprises (AE) managers and AE members. CENCIRA, the Government of Peru agency charged with training and preparing the AE to become productive organizations, was looking for alternative ways to provide adequate training, with its limited number of technicians, to a large number of AE members.

CENCIRA contributed the concept of rural centers for participant farmer training (CENCICAPs), and USAID contributed the concept of training paid campesino paratechnicians. Approximately 48-60 campesinos from 8 to 10 cooperatives were trained at each CENCICAP by about 6 CENCIRA professionals who also provided field supervision and follow-up training of individual paratechnicians at the cooperative level. Several members from each AE were trained in a particular skill. They later worked for the AE as managers-in-training and paratechnicians for approximately one year each. The project sought to draw AE members into every phase of decision making, planning, and implementing of the technology transfer. This approach was particularly appealing in Peru where the Government places high priority on linking economic development to broad popular participation in the country's economic, social, and political life.

Two types of paratechnicians were trained: resident assistants for management and field resident assistants.

- Resident assistants for management: Trainees received instruction in organization of farm enterprises, basic accounting principles, analysis of financial statements, preparation of applications for loans to financial institutions, responsibilities of directors, and management. They were required to convey the information they acquired to farmer members of the AE, thus reducing tensions between Government-appointed management and AE members.
- Field resident assistants: Training was oriented toward marketing and production. Twenty-one days of formal training and thirty days of intensive on-the-job training were provided, with concentration on preparation of farm plans, agro-industrial transformation, and production techniques related to specific crops. Upon termination of training, field resident assistants were assigned to production and marketing committees of their respective AE. A refresher course was given to all trainees at the end of the first year.

The project was experimental: It concentrated on a limited number of project sites with the intention of being replicated eventually on a national basis. Training took place in two provinces, Cajamarca and Tumbes. In Cajamarca beginning in April 1977, paratechnicians from six cooperatives were trained as administrators, cashiers, warehousemen, livestock supervisors, and crop supervisors. Training consisted of three seven-day cycles separated by three months of field work and follow-up periods. Of the 54 campesinos who received training, 80 percent completed the program. In Tumbes, beginning in October 1977, 43 campesinos from 9 cooperatives were trained as administrators, cashiers, rice specialists, and banana specialists. At the time of the final project report in April 1978, all Tumbes paratechnicians had completed their second classroom training cycle.

RESULTS:

In fewer than 18 months, campesino paratechnical training grew from a modest experiment in participant training to the CENCIRA campesino training model. Many new projects have been financed. With the training of cashiers, there is finally one person in each cooperative responsible for cash management. Overall, the training of paratechnicians has contributed significantly to improvement in cooperative productivity. In both Cajamarca and Tumbes the majority of paratechnicians agreed that their cooperatives had benefitted from the program.

In Cajamarca 27 of 28 paratechnicians reported that they were performing the jobs they had been trained to fill; in Tumbes 16 out of 16 reported the same. Co-op productivity has improved through the establishment of organization and internal controls on all aspects of co-op operations. Cadres of decision makers have specialized responsibilities for managing different cooperative production and administrative activities.

On the negative side, (a consideration for those planning to replicate the project), many of the CENCICAP professionals are too young and, therefore, lack sufficient self-confidence to convince paratechnicians or to supervise their performance with sufficiently critical insight. Many of the paratechnicians expressed a need for more training and more frequent follow-up supervision. Furthermore, paratechnician training should not be considered a one-year-only investment in campesino education; future projects of this sort should consider a three-year program of classroom sessions with continuous field follow-up.

PROVINCIAL DEVELOPMENT ASSISTANCE PROJECT (PDAD)

Philippines

TARGET POPULATION: Provincial-level government officials

OBJECTIVES: To strengthen the staffs of provincial governments to enable them to formulate and implement development plans for agricultural production, nutrition, family planning, infrastructure construction, rural electrification, and rural industry

DONORS/SPONSORS: U.S. Agency for International Development (project #4920256; follow-on to project #4920236) and the Department of Local Government and Community Development

DURATION: 1968-1977

COST: AID allocation: \$3,783

DESCRIPTION:

The Provincial Development Assistance Project was established in 1968 because of the inability of provincial governments to effectively plan, implement, and manage development programs, even when sufficient funds were available. In 1974, the project evolved into the Local Development Project. This evolution is noteworthy since it is a component of the project's success: the project evolved to meet particular needs, from a strictly agricultural program concerned with rice yields to one encompassing tax administration, electrification, and nutrition, among others. More than 35 percent of the Philippines' 72 provinces were involved in the program.

PDAP contains unique features that might be considered for the management of more common types of sector projects and for strengthening the management of certain area development programs. One feature that distinguishes it from many other projects is its emphasis on improvement of management, particularly its stress on local capacity to perform services contributing to the well-being of the poor.

The program has five parts:

- Program planning by a Provincial Development Staff (PDS).
- Establishment of a motor equipment pool for use in the infrastructure activities.
- A program of building rural roads and bridges.

- A program of real property tax mapping and tax administration which will increase provincial revenues.
- A program to raise provincial government personnel standards and stabilize employment.

One key part of the program was a specially designed training program at the University of Connecticut in development administration for the Provincial Development coordinator. Because it was thought that the course did not reach enough people, a team of trainers who were later sent to the University of Connecticut designed a course specially tailored to Philippines' problems.

Out-of-country training, however, was kept to a minimum. Most training was conducted by the University of the Philippines' Local Government Center, Department of Government, and USAID technicians. Typical training sessions included seminars in local development program administration, capital improvements, budget preparation, and road network development.

An important requirement for the development of local government planning capability is an adequately trained staff to collect information and help formulate and implement development programs. Provincial development staffs and councils have been organized in all PDAP provinces to do this. Members include coordinator, project analyst, fiscal analyst, agriculture analyst, engineering analyst, and research statistician.

The project was apparently very successful in the provinces. By the end of 1972, nearly all the provinces of the Philippines wanted to be included in the project. The preceding year, no PDAP governor was defeated for re-election, a result most of them ascribed to the project. Those provinces in the program constantly requested more training.

Certain elements of the PDAP are noteworthy for their potential adaptability to other types of sectoral projects. They include the following:

- A core planning staff which reports directly to the head of the project.
- An annual plan for proposed activity, including resources required, targets to be achieved, and means and schedules for implementation.
- Detailed manuals and annual reports to be widely distributed.
- Locally funded project activities, subject to reimbursement when the work is completed and found acceptable.
- On-site inspection of work in progress, and, when necessary, immediate instruction for corrective activities.

MAN IS HEALTH (MTU NI AFYA)

Tanzania

- TARGET POPULATION:** One million rural Tanzanians
- OBJECTIVES:** To provide villagers with basic information on disease, disease control, and the relationship between environment and health, and to encourage them to take appropriate action; to encourage the newly literate who had participated in the preceding literacy campaign to maintain their skills by reading campaign materials
- DONORS/SPONSORS:** Government of Tanzania and the Swedish International Development Authority
- DURATION:** 1972-1973 (including 16 months of planning)
- COST:** \$272,017 (externally financed); Total unavailable

DESCRIPTION:

About three-quarters of Tanzania's population live more than 10km from the nearest hospital; one-fifth of the population live still farther away from any hospital, health center, or dispensary. Those factors, in addition to the prevalence of widespread disease, resulted in a mass media campaign to teach villagers how to prevent disease. Encouraged by the success of a previous radio literacy campaign, representatives of the ministries of health, agriculture, and education, as well as members of TANU (Tanzania's political party) and the Cooperative Union of Tanzania began planning the national health campaign.

Officials at all levels were versed in the project's importance; industry manufactured clothing stamped with the project's logo; and broadcasters and journalists kept the public informed of all campaign-related activities. Study groups of from 15 to 60 met informally with a discussion leader to hear radio broadcasts and discuss supplementary texts provided by the government. From these discussions sprang community work projects carried out by study groups in their own villages. Seventy-five thousand leaders were called for. Thus, training was a significant component of this project. It proceeded in three stages:

- Three-day seminars for regional teams (regional officers from various ministries) to learn about study-group methods. The teams were trained to conduct the next level of seminars.
- District seminars set up by the regional teams, at which participants--including adult education officers, rural development officers, health and medical officers, agricultural extension agents--were taught how to train the front ranks of study-group leaders. These seminars were also distribution points for campaign textbooks.

- Two-day division and ward seminars to learn how to recruit study-group members and how to conduct individual study groups. Group leaders were trained through direct use of campaign materials--textbooks, radio program samples recorded on cassettes. Role-playing in mock study-group meetings was also a part.

Study-group leaders were chosen in different ways. Sometimes members of a prospective study group chose one of the group to attend the training seminar. At other times, the ten-house cell leaders (from TANU's organized network of local leaders) were made study-group leaders. Sometimes Tanzanians became leaders by responding to radio and other media publicity. Probably the most common method was for grass-roots adult education organizers to select leader trainees.

RESULTS:

At times there was some criticism of training techniques: group leaders could not be adequately trained in two days; many of them lacked experience with books, seminars, and education in general. However, the overwhelming success of the campaign overshadows these objectives. Approximately two-million Tanzanian adults--twice the number officials hoped to reach--participated in the project. The overall attendance rate of those who participated from the beginning was 63 percent, an unparalleled achievement for a campaign of such breadth. The quality of village life in general improved significantly.

The study groups, while not entirely responsible for the success of the campaign, did contribute. Leaders encouraged active participation in discussion, rather than the recitation and repetition of words and sentences often characteristic of Tanzania's adult education classes. Many study groups went beyond the suggestions of the group leaders' manual and devised original and effective projects of their own.

AGRICULTURE COOPERATIVES

Uganda

TARGET POPULATION: Farm cooperative members at all levels

OBJECTIVES: To improve management skills at all levels--from the primary society to the Central Union--in the marketing of crops and animal products and to provide technical assistance for establishing credit programs

DONORS/SPONSORS: U.S. Agency for International Development (project #6170006), the Africa Cooperatives Savings and Credit Association, Canadian International Development Agency (CIDA), and other international agencies

DURATION: 1958-1975

COST: AID allocation: \$3,711,000

DESCRIPTION:

According to the 1969 census, Uganda has a population of 9.5 million, 80 percent of whom live in rural areas and derive their livelihood from agriculture; an additional 10 percent earn part of their living from agriculture. In 1913, the Cooperative Movement began, which enabled small farmers to take part, through cooperative associations, in marketing and processing their own products and to practice thrift. The latter practice helped mobilize local savings to partially finance marketing and credit activities of the Cooperative Movement.

However, farmers lacked sufficient production credit. Funds were limited and frequently inefficiently utilized. The staff of the Department of Cooperative Development was too small and inadequately trained to administer credit cooperatives. Thus it was necessary to train cooperative members in management skills.

The training program consisted of the following:

- Counterpart training: Cooperative Department headquarters staff in savings programs and district staffs were counterparts of U.S. technicians.
- U.S. training: Senior officers from the Cooperative Department were given a six-month course in credit union operations.
- In-country training: Government staff and Cooperative Department leaders were offered a six-month course in savings and credit operations; Cooperative training centers provided the bulk of training for Cooperative staff and other officials; the Cooperative Alliances, the education arm of the Cooperative Movement, conducted one-day courses for members of Savings Societies.

The training program was designed to increase administrative effectiveness, especially in savings programs; to put in service operations manuals, forms, and bookkeeping and audit procedures; and to increase the number of registered savings and credit societies.

RESULTS:

The project was responsible for improving marketing management skills at all cooperative levels. In 1969 when a new coffee-marketing policy called for all coffee buying and processing facilities to be owned, operated, and managed by cooperative societies, implementation of the policy was carried out with relative ease.

Over 300 agriculturalists were trained in farm planning and credit supervision. A credit program within the Department of Cooperative Development and a cooperative bank were established. Credit became available to local societies and their members. The Bukalasa Cooperative College Education program was expanded and refined. Cooperatives staffed with recent graduates of the college have qualified management. The Cooperative Department was significantly upgraded; salaries and benefits of department personnel were placed on the same level as those of other related ministries.

TRAINING OF WOMEN IN THE SAHEL

Upper Volta

- TARGET POPULATION:** Sahel-based extension agents and female village para-professionals
- OBJECTIVES:** To train Sahel-based extension agents and female village para-professionals to work with Sahel women in the organization, financing, and management of labor-saving technologies, income-generating activities, health and hygiene programs, and local language literacy.
- DONORS/SPONSORS:** U.S. Agency for International Development (project #6860226) and the Government of Upper Volta
- DURATION:** Begun in 1978; ongoing
- COST:** AID: \$1,700,000; Government of Upper Volta: \$268,700

DESCRIPTION:

(This project, although still in its early stages and therefore not formally evaluated, merits attention because it focuses on training African women in project management skills and because it thus far appears to be successful.)

Aware that women can no longer be omitted from large-scale assistance efforts in the development of Upper Volta's Sahel, the Ministry of Social Welfare approached USAID/Upper Volta with a proposal to extend its Equal Access Project for Women and Girls to the Sahel. The project, which had been in effect for ten years, offered women in 83 African villages the opportunity to improve their families' quality of life in such areas as health and hygiene, midwifery, and income-generating activities. The Equal Access Project established a regional management team to supervise village activities and on-site training of extension agents.

USAID/Upper Volta found the Equal Access Project attractive for two reasons:

1. It emphasized an integrated approach to development across health, agriculture, and education sectors;
2. It focused on full participation of women in the development process.

In March 1978, USAID began preparation for the new project.

Training became an end in itself since the aim to train village women to organize activities for their own direct benefit required trained cadres, of which there are very few in the Sahel. A training center was constructed and a

project management team established, consisting of a team leader, agriculturalist, economy specialist, literacy and audiovisual specialist, bookkeeper/accountant, secretary, and two drivers--all Voltans--and an American technical advisor. Efforts were made to recruit highly trained and well-educated Voltans who were then charged with the day-to-day project management decisions and training responsibilities. Sahelian applicants were sought since they would be more readily accepted by the local population, would be familiar with area problems, and would be more likely to remain with the project over the long-term.

The project has two basic components: (1) training of village extension agents and para-professionals; and (2) identifying, organizing, financing, and managing appropriate interventions at the village level. The training by the management team and the central Equal Access staff is complemented by expertise from the outside (e.g., from the ORD--Regional Development Organizations).

Extension agents are instructed in techniques of organizing and motivating villagers; transmitting information to them about credit; development objectives; and methodology of project monitoring and reporting. Some men are trained, since husbands and village elders are more likely to consent to women's involvement in the project if the men perceive some direct benefit to themselves.

For the para-professional training, a village committee was established to be consulted about project possibilities. Two women were trained as animatrices to identify possible interventions to be undertaken. They assist the monitrices in motivating other women to remain involved in the project. The monitrices are encouraged to learn how to assess project viability and success and how to gather basic data needed to make decisions about which interventions should be tried.

RESULTS:

Because the project is in its early stages, a discussion of results is not yet possible. However, certain benefits can be anticipated. Assuming that interventions will have been initiated in 50 villages by the end of the project, probably 2,000 to 2,500 women will directly benefit. The training component will also directly benefit the rural poor of the area--primarily women. Since village women themselves will receive training, the benefits of that training will more directly accrue to the population at the base level than if training were restricted to higher-level cadres. Training literate trainers from the same population is intended to speed direct benefits to the poor majority. The multi-purpose training center will benefit the general population since it will also be available for other kinds of training.