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AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

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8. ESTIMATED FY OF PROJECT COMPLETION: FY 83

9. ESTIMATED DATE OF OBLIGATION: A. INITIAL FY 77; B. QUARTER 4 (Enter 1, 2, 3, or 4); C. FINAL FY 82

10. ESTIMATED COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	FIRST FY B. FX	FIRST FY C. L/C	FIRST FY D. TOTAL	LIFE OF PROJECT E. FX	LIFE OF PROJECT F. L/C	LIFE OF PROJECT G. TOTAL
AID APPROPRIATED TOTAL	1606		1606	5397		5397
(GRANT)	( )	( )	( )	( )	( )	( )
(LOAN)	( )	( )	( )	( )	( )	( )
OTHER U.S. 1.						
OTHER U.S. 2.						
HOST COUNTRY						
OTHER DONOR(S)						
TOTALS	1606		1606	5397		5397

11. PROPOSED BUDGET APPROPRIATED FUNDS ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE C. GRANT	PRIMARY TECH. CODE D. LOAN	E. 1ST FY F. GRANT	E. 1ST FY G. LOAN	H. 2ND FY I. GRANT	H. 2ND FY J. LOAN	K. 3RD FY L. GRANT	K. 3RD FY M. LOAN
(1) EH	600	640		1606		491		570	
(2)						280			
(3)									
(4)				1606		771		570	
TOTALS									

A. APPROPRIATION	N. 4TH FY 80 O. GRANT	N. 4TH FY 80 P. LOAN	Q. 5TH FY 81 R. GRANT	Q. 5TH FY 81 S. LOAN	LIFE OF PROJECT T. GRANT	LIFE OF PROJECT U. LOAN
(1)	600		900		5397	
(2)						
(3)						
(4)						
TOTALS	600		900		5397	

12. IN-DEPTH EVALUATION SCHEDULE: MM 08 YY 80

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

1 (1 = NO, 2 = YES)

14. ORIGINATING OFFICE CLEARANCE

SIGNATURE: [signature]

TITLE: Robert W. Schmeding
Director, DS/ED

DATE SIGNED: MM 05 DD 23 YY 79

15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION: MM DD YY

A.I.D. 1330-4 (3-75)

Summary Decription of the Project Amendment

This amendment is designed to add an applications support element to the analytic and planning activities which are already underway in the project, "Studies in Facilitating Learning: Communications Technology." The ongoing activities provide for the following: planning teams for the field; policy analyses and guidelines for field planners; training analyses; field seminars; and, the development of descriptive films on key projects. This amendment will help support the addition of operational communication elements to Mission projects, permitting them to try out communications strategies for meeting certain of the information, administration, and training needs of those projects. Funding will be made available under this Applications component for at least four major subprojects, each expected to average about $500,000. In addition, there will be several smaller activities of a similar nature.

The overall project will have the following form:

Project: "Facilitating Learning: Communication Technology"

Component A:	Studies	Component B:	Applications
(already funded)	-planning teams -policy analysis -training analysis -field seminars -project films		-subprojects in field

This Project will not include applications involving satellite communications, these are the subject of a separate program. Applications are expected to take place in a variety of sectors and will use a variety of communications media.

Two subprojects have already been defined for FY 79 funding. The first involves the provision of localized agricultural information through radio in support of a major Mission agricultural program (in Jamaica); the second involves a small level of support to the communications element of a health anxiliaries program (in Guyana). Obligations under this project will be incurred only as each subproject is designed and reviewed.

The amendment will also change the termination date of the overall project from September, 1980 to September, 1983 and will provide for continued Study activities through that date.

Purpose

The purpose of this project component is to facilitate the introduction of promising communications approaches into A.I.D. field projects. These approaches represent in many cases unfamiliar ways to meet the key information and training requirements of field projects. Because of the unfamiliarity of these approaches, they have not as a matter of course been built into the design of such activities. This effort will absorb some of the risk that is perceived in introducing such approaches and further will help reduce that risk by making available the most effective design, feedback, and evaluation skills.

Through a long history of studies, evaluations, and AID supported R&D programs, a great deal has been learned by several Bureaus of AID about how to apply communications methods to improve development programs. Experience has grown in every sector: in agriculture, projects such as the Latin American Bureau's Basic Village Education project have demonstrated how radio and other media can be used as intensive local sources of agricultural information for very poor farm families; in health, uses of two-way radio in Central America (as well as in remote parts of North America) show promise for linking scattered local health workers into an operational network; in every region, rural radio broadcasting is showing its potential for introducing key nutritional practices, if used imaginatively; and in education, experience with radio, classroom television, and instructional design has been substantial and encouraging.

Most of these experiences are recent, and many have been limited to small, exploratory programs. The process of incorporating these findings into the program planning of AID Missions and LDC's is understandably slow and gradual. That is not surprising: most AID officers and their LDC counterparts have had little first-hand experience with these approaches, particularly those developed in recent years; there is an uncertainty about what is required to design and to manage effectively such activities; and, there is not yet available a sufficiently wide range of models to permit easy adaptation to the circumstance of a particular country. Equally significant is uncertainty about the adjustments needed in development projects in order to take advantage of communications components. These considerations often add up to a sense of risk that deters adoption.

The intent of this project component is to reduce the risk, in order to begin to build these approaches into the mainstream of AID activities at the earliest possible point. It will do so by providing funding (often only partial) to help underwrite the project, by providing technical assistance to the Mission in project development, management

and evaluation and, as the activity develops, through providing additional models for the use of A.I.D. program planners worldwide.

Project Background and Detailed Description

The project of which this is to be a component, "Studies in Facilitating Learning," has a number of activities underway: analytic studies of the role of communication in various sectors; state-of-the-art seminars in LDC's; training workshops; and planning studies in support of Missions. This component takes the next step: helping to provide first-hand experience in the application of communication to development problems, and diffusing that information to Missions throughout the world.

Funds under this project will be able to support work in a variety of sectors (agricultural information, health, or education), a variety of types of assistance (training, technical assistance, equipment procurement, evaluation, etc.) and a variety of communications methods and media, as appropriate (broadcast radio, cassettes, two-way radio, community television.)

As an example, the first activity to be funded under this amendment (see attachment) would assist the Jamaica Broadcast Corporation in establishing a local radio station in a district where AID is supporting a massive agricultural effort involving new agricultural techniques associated with farm terracing and other innovations. The local radio station will be used on a daily basis to transmit very focused programs concerning the agricultural project to farmers in the district. Furthermore, the station will develop programs in other development areas, including special programs germane to the economic roles of women in the region. It would thereby, at a cost of under $500,000, add a key element to an important activity in which AID already has invested $13 million. If successful, this activity will influence not only future agricultural development plans by USAID/Kingston, but also will provide for a new pattern of service to rural areas by the Jamaica Broadcasting Corporation.

Other activities under this amendment will, wherever appropriate, build onto existing projects in order to improve their delivery capability and make them more effective. This is often the optimal way in which new communications techniques can be utilized--in a fashion where they make more efficient other project elements. It will, furthermore, increase the impact that a small activity to be funded in FY 79, for example, will add an evaluation and consultation component to a project in Guyana which will utilize two-way radio to support local health workers.

Programs in every region will be eligible for support. They will be funded only upon Mission agreement that the activity can serve as an important future guide to AID programs in that country. Although these activities will often have innovative features, they will not be stand-alone, R&D activities with an uncertain relationship to mainline AID objectives in the country.

Criteria for sub-project selection.
The basic rationale for adding a communications component to a field project will be to improve effectiveness and/or to expand services to beneficiary groups not being reached. Additionally, subprojects must meet as many of the following criteria as possible:

1) the project represents an approach which, for the country, is substantially new in the methods used to provide information;

2) the information, education, training or two-way communication needs are a key to the success of the broader program;

3) the implementing host country institution is already in existence;

4) there is a willingness to incorporate evaluative and innovative activities into the project, and a willingness to permit easy access by others to the experiences gained in the project;

5) there is a reasonable probability that the host country can find the resources to continue the activity after AID support is completed;

6) it is a problem of interest to countries in more than one region;

7) it is an application that will in some degree move forward the Agency's understanding of the practical application of development communications.

8) it is manageable within AID staff resources.

Sub-project identification and selection process. Projects beyond the initial Jamaican and Guyana proposals will be identified both by soliciting nominations from field Missions and through the numerous field contacts underway in the "Studies" portion of the project.

Approval of sub-projects eligible for support will be made in cooperation with the cognizant regional bureaus, utilizing the criteria listed above. The basic determination to proceed with a project will be made on the basis of a document paralleling the PID in its content and level of detail.

Following initial agreement with the cognizant RB to proceed, full technical and budgetary details will be worked out and then incorporated into funding documents jointly approved by Mission, DS/ED, and the host country.

The "Studies" portion of the project will supply planning aid in the development of sub-project documentation.

The sub-project development sequence will thus be as follows:

1) Indication of Mission interest.

2) PID-type document prepared and submitted, with contractor aid if necessary.

3) "PID" reviewed in light of selection criteria, technical soundness, available project resources, and competing proposals.

4) Project action plan developed.

5) PROAG and contracts signed.

Kinds of sub-projects. Among the kinds of activities appropriate for funding will be the following: provision of in-service training for community-level workers, through such media as audio and video cassettes and broadcast radio; support of local health delivery networks through two-way radio communications; assisting in the adoption of new agricultural and health practices by the use of broadcasting; and, basic education. As indicated throughout this paper, the support provided herein will permit first steps to be taken in the use of communications to serve these needs.

Management

AID management of specific projects will vary, depending on the availability of Mission staffs with specific expertise in the areas of communications. In most cases, it is anticipated that a cooperative management relationship will be worked out, with day-to-day administrative responsibility residing in the Mission and the determination of major technical matters residing in AID/Washington (DSB), in consultation with the Mission and Regional Bureau technical staffs. In most cases, a host country Project Agreement will be signed, with Mission concurrence, and a contract let with a U.S. institution with experience in communications applications.

Technical Analysis

The technical adequacy of these applications activities will be determined by the specific charactertistic of the subprojects. Those subprojects characteristics will in turn be very dependent for their soundness on the use that is made of the knowledge of development communications

generated by the several bureaus of AID over the past several years. Among the key sources of that knowledge are experience with the following projects:

1) LA/DR's Basic Village Education Project, a very informative recent effort to use local radio for intensive support of agricultural activities;

2) DS/ED's Radio Mathematics project, which in its Nicaragua test site produced sustained learning gains in rural Nicaragua schoolrooms through improved instructional radio methods having wide applicability;

3) DS/N and DS/ED's several R&D efforts to use communications media (radio and more recently photonovels) to reach mothers with targeted, practice-changing, programs relating to child health practices and to family nutrition.

The above projects have all been very thoroughly evaluated and described and are accessible to those responsible for planning and conducting new applications. AID managers will be responsible for ensuring that these experiences are fully absorbed.

In addition to these key projects, which utilize a number of the latest methodologies in the use of mass communications for instruction and motivation, there is a growing body of additional important, documented experience, including:

1) projects using two-way radio to support networks local health workers;

2) large scale classroom radio and television systems: in India, El Salvador, Ivory Coast, Korea, Mexico;

3) radio systems serving campesino needs in many Latin American countries, (the largest of which, ACPO/Colombia is being evaluated through an LA/DR contract.)

In the present project, educational and administrative techniques derived from these activities will be applied in operational settings. A substantial number of such techniques have been developed. All applications, for example, rely on methodologies for the careful analysis of information and communication needs, analysis of local patterns of information use, formative evaluation techniques, including pretesting, and innovative methods for making media instruction attention - getting. Those applications involving the teaching of new practices will make use of the methods of task analysis, behavioral observation, "feed

forward" techniques designed to align information with user needs, and systems methods for integrating the informational inputs of varied information sources. Instructional programs additionally will make use of reinforcement and review techniques found successful in a number of recent media projects.

Mechanisms for transfer of lessons and experience among projects: The techniques that have been developed will be made available in a number of ways, both within specific subprojects and through activities under the "Studies" portion of the overall project.

a) Through activities within specific subprojects: travel by LDC specialists to observe key ongoing projects and to discuss specific methods with institutions working in these areas; technical assistance, often through short-term consultations, by LDC and U.S. experts who have participated in key projects; training at U.S. institutions which have developed specialized expertise in these methods through AID grants or contracts; access to the full array of documents, films and videotapes developed by AID in this field; workshops and conferences.

b) Through other elements, already ongoing, of the overall "Studies" project: workshops and state-of-the-art seminars which bring experts to the field for in-depth discussion; the production of films and videotapes on key projects (together with their translation into Spanish, French, and in some cases Arabic);

technical advice in the field on project development and needs analysis by development communications specialists; policy analyses and field guides centering on the use of communication strategies in nutrition, health, education, population and agriculture;

faculty workshops designed to bring the U.S. graduate training community in this field abreast of recent developments; summer workshops for LDC participants on topics such as communications needs analysis and formative evaluation.

c) Through other activities, such as: the AID-established information service and newsletter in this field, managed by the Clearinghouse on Development Communication.

In sum, these field activities will have sizeable resources of expertise, documentation, and experience to draw upon, as needed. That experience now represents efforts with at least some degree of success in every key element of such projects: planning, management, costing, evaluation,

R&D, software, design, production, and utilization. While substantial adaptation will be needed in order to meet the exigencies of specific operational demands, sufficient technical information and resources exist to hold considerable promise of success. On these grounds DS/ED has determined that the project is technically sound.

Financial Analysis and Plan

Financial rate-of-return analysis is inappropriate to this type of project. For specific projects, a careful analysis will be conducted to determine whether the recurring budget can be accommodated with available host country funds.

The year-by-year funding plan for the overall amendment follows:

		Total
FY 79		
(JBC project)	$550,000	
(Guyana health project)	20,000	$570,000
FY 80		
(1 to 2 additional major projects)	500,000	
(additional small projects)	100,000	600,000
FY 81		
(2 to 3 additional major projects-partial funding)	600,000	
(additional small projects)	50,000	
(continuation of Studies activities: specifically, planning and field seminars)	250,000	900,000
FY 82		
(Small projects)	50,000	
(Reporting and utilization)	150,000	
(Continuation of Studies activities)	150,000	
(Completion of major project funding)	600,000	950,000
TOTAL		$3,020,000

Details for the FY 79 obligations are included in Annexes A and B, on the Jamaica and Guyana subprojects. The additional Studies funding will provide for a coninuation of project planning services and state-of-the-art field seminars from October 1980 through the summer of 1982. $400,000 will provide for 4 to 5 person-years of project planning and seminar expertise, on call by Missions and AID/W substantive offices. While this is a lower rate than is currently being used (5 3/4 person years/yr.), it is all that seems appropriate for budgeting at the present time, given changing circumstances and possible other mechanisms.

Social Analysis

As indicated earlier, the basic justification for adding communications components to established field projects will be both to enhance the effectiveness of those projects and/or to expland services to groups not currently reached by those services, typically the poorest elements of a society. Effective use of the communication media offer a way of partially overcoming the common finding that those of higher socio-economic status have the greatest access to services from development projects, since media such as radio are in many societies so widely distributed that they provide a generally available information source, either in the home or in community listening.

The specific track from project input to beneficiary will vary with the subproject being addressed. In the first major subproject, in Jamaica, a specific population of small farmers will be reached with messages targeted at specific practices. Included also will be special programs to lend support to the enhanced role of women in the region. This subproject illustrates the rather precise targetting of this program. While broader uses of communications are also important to developing societies, the hallmark of activities in this component will be careful targetting on specific learning, information, or other communication needs for specific beneficiary populations.

In sum, the subprojects to be funded will be relatively easy to design to meet AID's beneficiaries requirements, since modern communications media can reach the poor, can inform many who by illiteracy are presented with a barrier to obtaining other forms of information, and can reach those with little access to institutionally-controlled sources of information. Throughout the activities under this project, the media will be used in a fashion targeted on specific beneficiaries or on the networks of local workers who provide service to them.

Economic Analysis

In many cases, these subprojects will be added to larger activities. The benefits to be derived will usually depend on the combined inputs of information, resources, training and other elements of an overall development project; it will not be feasible to disaggregate among the elements of the system. However, evaluation will be able to identify certain intermediary impacts of communication--for example, increased exposure to information by target groups at different socio-economic levels; changes in practices and attitudes; actions taken to participate in development activities.

On the cost side, the activities to be supported typically will involve rather low marginal costs. Most parts of the infrastructure for the reception and production of development radio programs, for example,

are in place in many countries, including groups of trained broadcasters and engineers. This project will fill in gaps--it will, for example, provide training in targeted development programming, support a local radio facility to complement national programs with developmentally relevant local information, conduct an analysis of, or support, the initial production of information materials designed for specific subpopulations.

For these low marginal costs, the intention is to have a lasting impact at two levels. First, we expect to show that continued investment in the communication/information systems will have payoff value for the broader projects.

Second, we hope to demonstrate to the communications institutions of participating countries that there are practical ways in which their institutions can better serve development needs. By adding to their traditional mass broadcasting model more targeted services, these institutions have an extraordinary opportunity to respond to the growing pressures on them to serve development goals more directly. The most spectacular example of such a development to date has occurred in India, where the one-year SITE village television project producted a decision by the national broadcasting service to develop what is, in effect, a second network, specifically designed to serve the rural population with practical information. The time is ripe in many countries for this kind of shift in the mandate of the national communications service. To the extent that this project can contribute to that new focus of local communications efforts, its marginal economic benefit will be substantial.

Implementation Plan

The first major subproject will fund the Jamaica Broadcasting Corp. and the Jamaica Misistry of Agriculture in the development of a local broadcasting capacity which will make possible the production of programming in support of an agricultural development scheme in Central Jamaica. This activity is ready to begin in July, 1979, following extensive discussion and analysis over the past year. It will be initiated with a workshop on agricultural communications in June, to be followed by two years of activity including technical assistance, training, procurement of equipment, and evaluation. An attached cable from USAID/Kingston provides strong Mission endorsement.

The second activity will be assistance to a project in Guyana involving the MEDEX system of local health delivery. In June, , a small class of 10 MEDEX health workers will begin field work. As the result of a very recent consultation under the "Studies" portion of the contract the Mission has decided to build a two-way radio communications component into the next phase of this health program. They would like to gain

experience with the July class in order to guide planning for the later activity. The mission will provide $30,000 and this project $20,000, for a total of $50,000.

Support to additional subprojects will await FY 80 funding and a systematic review of possibilities. Efforts have been made to discourage expectations until such an orderly process is established. However, one Mission, as a result of earlier consultations, has requested review of a subproject possibility. USAID/Bolivia has, with consultations from AID/W, been examining a possible pilot effort which would use video-cassettes for in-service teacher training, in an effort to enhance the effectiveness of the in-service support provided by the provincial university system in Bolivia to the newly reformed rural school system. After approval of this amendment, that subproject will be reviewed for possible funding.

It is fully the intention of this component to support subprojects in regions other than Latin America, and special efforts will be undertaken to make that possible. These steps will be taken:

1) A cable to each region, within 30 days of approval of the amendment.

2) Discussion of these possibilities in connection with field consultations under the Studies element of the project.

3) Building subproject support possibilities into field discussions on the diffusion of development communications R&D efforts, such as the current Mass Media Health project and the several radio instruction projects underway or soon to be started.

Evaluation

Specific evaluation arrangements and funding will be developed as an integral element of each project, always providing at minimum an analytical case study of the project, describing the problem, reasons for the design of the communications component developed, and experience with the project. To the extent possible in a field setting, without intruding on operational efficiency, data will be collected on effects and on the process of incorporating the communications component into the other elements of the field program. Evaluation advice will be provided under the "Studies" portion of the project.

In the project's final year, results from all subprojects will be assembled and analyzed. Conclusions will form the basis of a final, summary report, to be prepared by a contractor funded for this purpose.

Throughout the earlier course of this activity, however, yearly evaluations will be conducted with an intention not only of assessing the utility of this sort of AID programming strategy, but also of delineating in-process conclusions as to appropriate methods and models.

ANNEX A

SUBPROJECT # 1

JAMAICAN AGRICULTURAL BROADCASTING

TABLE OF CONTENTS

I. A. SUMMARY OF PROJECT

The project will support the existing extension services of an AID-supported Integrated Rural Development Project in the Pindar River-Two Meetings Watershed areas with the capability to design, broadcast and utilize agricultural radio programs as well as programs designed for rural women to support new practices related to nutrition, health care, etc.

The ongoing Integrated Rural Development Project (IRDP) in Central Jamaica has received $15 million in AID funding. It has as its goal to improve the standard of living of small hillside farmers in rural Jamaica. It will establish an agricultural production model for continuous, multiple-cropping techniques suitable for land that has been terraced and otherwise treated with appropriate soil conservation measures. It also has a home economics component to improve the nutrition and health practices of the rural farming population.

The specific purposes are to improve agricultural production practices, to control soil erosion and to strengthen the human resources in the Ministry of Agriculture. The Agricultural extension services, the Jamaica Agricultural Society and the P.C. Banks will play the major role in assisting farmers in developing farm plans, selecting appropriate crops and cultivating techniques, raising chickens, rabbits and vegetables for the family table, and in providing credit and marketing assistance (for further reference see Appendix 1 and 2).

The radio programs will support the outreach activities of the various agencies concerned. Specifically, they will provide:

- in-service information and training for extension agents;

  programs in support of farmer meetings convened by extension agents;

- general broadcasts for farmers in support of the rural development activities;
- broadcasts for female farm operators and farmers' spouses to support home making and child care responsibilities;
- broadcasts for the rural population on other development concerns such as literacy and health education.

Under the project, staff of the Jamaica Broadcasting Corporation (JBC) and the Ministry of Agriculture who will jointly carry out the project will be trained in research methods and development support communications techniques. The radio programs developed by the team will be developed and transmitted locally, covering the project area. The radio station will seek maximum involvment by the farming population in radio program production as well as by the agricultural project extension agents and home economists.

AID assistance will train staff to carry out the program, with emphasis on training in development communications. It will provide technical assistance for one year in areas of production, planning and evaluation. The JBC and the Ministry of Agriculture will carry the staff and all other operating costs for the project. AID will purchase transmission and radio studio equipment necessary for local origination and distribution of radio programs. The facilities will be installed in Mandeville, Central Jamaica. About 2/3 of the project funds will be allocated for human resource requirements. The remainder will be for equipment purchase.

This radio project will be put into operational use lessons learned from other recent radio projects, such as the Basic Village Education Project in Guatemala and several R & D projects relating to health and nutritional practices. The project will provide communications and development planners in

I. B. DESCRIPTION OF PROJECT

I. B. I. Project Purposes

The project purposes are to:

1. augment the information and farmer and farm wives education and other activities of the extension program by working with the Jamaica Broadcasting Corp., and the IRDP to design, develop and implement radio programs. Coordinated administrative arrangements will ensure their effectiveness on the selected listening audience;

2. assist Jamaica Broadcasting Corporation to learn from this experience in such a way as to become responsive to different regional and local development needs.

To the extent these purposes are achieved, they will aid in achieving the broader goals of the Pindar River project and to improve the standard of living of small Jamaican hillside farmers in the region.

I. B. 2. Problems to be Solved

The performance of the agriculture sector in Jamaica has been disappointing in recent years. Basic infrastructure has largely been ignored, credit channels are cumbersome and not effective in reaching the small farmers, and marketing rests on a disjointed system of commercial middlemen who reap much of the profit. These factors have accelerated rural-urban migration and increased the proportion of potentially productive agricultural land that is lying idle. In order to overcome these problems the project aims to increase the use of agricultural practices that show promise of raising the average yearly income of the farmer and to make rural living more attractive particularly to the younger population. These outcomes can only be achieved if farmers adopt soil conservation activities and proper farming methods to control water resources, to conserve

valuable agricultural land on the hillsides, to increase production yield by using better crops and multiple-cropping techniques, and to improve homemaking practices by raising nutritional foodstuffs for the family table. Additionally, new marketing opportunities and credit services will be essential components to the success of the project.

Communication of new practices, services and opportunities to the small farmers in the project area is in the form of personal contacts with extension agents and home economists, of demonstration plots and of print materials. The addition of radio programs is seen as a valuable supplementary means of reaching the target audience more effectively and of reinforcing the extension agents' and home economists in-service training, which now can only be conducted on a monthly basis. The radio programs will help overcome difficulties of the extension services in the following areas: a) farmer motivation; b) information targeted to support and maintain extension workers skills and knowledge; c) reinforcing messages and information from other sources, d) encouragement of a process of exchange of ideas in the field among farmers.

The addition of local radio production and transmission capabilities to the national broadcasting network as exemplified by the Mandeville station, and the experience of close co-operation with the Pindar River Project, will assist the JBC in being more responsive to the local and regional information needs of the rural populations. JBC does not yet have the experience or trained staff to satisfy this need. JBC's present experience is in radio production for a national audience and its programming is more along the lines of journalism than development support communications. An attempt at localized radio programming has been made in the Montego Bay area. However, this undertaking is not as successful as it could be because of the lack of experience and training cited above. Another local radio

station, to be funded by UNESCO, will be installed in Ocho Rios. It is not tied in with a specific development project. We hope that the approach developed for the Mandeville station will be utilized here. Therefore, training and experience in localized development communications is of paramount importance to the overall JBC network in the short- and the long-term.

I.B.3. Beneficiaries

The project will take place in Central Jamaica. Central Jamaica is characterized by high population density and economical dependence on agriculture, with small farms producing crops mainly for local consumption. The AID agriculture program in Jamaica is strongly committed to improvement of the social and economic situation of the small farmers in this area who have an annual income of $265 U.S. per year and land holdings of 2.9 acres. Nearly all of these small farmers who are producing Jamaica's domestic food supply occupy hillside plots requiring extensive agriculture. There are 150,000 of these farmers in Jamaica and 4,000 in the Pindar Rivers-Two Meetings Watershed areas in Central Jamaica. In the same area an additional 1,000 landless laborers derive their livelihood from farming and related industries.

The primary beneficiaries of this project will be the farmers in the Pindar River-Two Meetings Watershed areas in Central Jamaica. Other beneficiaries are farmers who are in the area of coverage of the radio station but not in the integrated rural development project area. Since it is a goal of the integrated rural development project, as well as the JBC local radio station to replicate the experiences in other settings on the island, secondary beneficiaries potentially include many of the 150,000 small farmers in Jamaica. Further, the local radio station will also provide broadcasting for other development sectors in health, education, and so forth, thereby reaching additional beneficiaries. (For detailed background, see P. P. "Jamaica-Integrated Rural Development" - AID-DLC/P-2256).

Since women play an active role in the day-to-day work of the small farms, as working spouses or as farm operators, they as well as men will benefit

from the increased information and education activities of the Integrated Rural Development Project. In addition, this Project proposes a specific component focusing on women. In co-operation with the Project's home economists, radio programs will be developed to support the activities of rural women in regard to growing foodstuffs, home making practices, nutrition, and carrying out child care responsibilities. (For detailed background see Appendix 2, - Planning a Woman's Component). This component was planned by staff of AID's Women's Development Office.

Also, findings from an ongoing LA/DR project on the uses of media for women will be incorporated into the project planning.

I. B. 4. Replicability

It is a stated policy of the two main partners in this project, the Ministry of Agriculture and the JBC, to replicate the experiences gained. The agricultural production model developed in the Pindar River-Two Meetings Watershed project is designed for replicability in other parts of the country. The project's extension activities and its radio component will be part of this model; further, the Ministry of Agriculture will gain first-hand experience in using radio as a well defined addition to the extension activities. This experience is likely to gain recognition as part of other projects.

For JBC the replicability issue of the project goes beyond the agriculture sector and encompasses the Corporation's long-term role in development support communication generally. JBC is in the process of augmenting its present distribution system of national coverage with local production and distribution facilities which will provide the flexibility required to support local or regional development programming.

The replicability of this project goes beyond Jamaica since the development of local or regional radio programming in support of development projects, particularly in the agriculture sector is a recognized need by many agriculture development planners; for example, the Huellaga River Area Development Project in Peru is discussing the need for similar support activities. The implications for staffing, staff training, institutional co-operation and costs of this project will yield the critical planning base for the facilities to be developed subsequently.

I. B. 5. Project Implemention

The project is designed to cover a two year period from its initiation. After this period it is expected that the agricultural radio programming will be absorbed fully into the operations of the radio station, as well as into the integrated rural development project and that sufficiently trained local staff will be available to continue the development support communications functions.

The Ministry of Agriculture has agreed in principle to make two staff people available full-time for the radio project. Also, JBC will make two producers and other staff available. One producer will work full-time on programming and management of the Pindar River agricultural project. The planned arrangements for access to the JBC transmission system in Mandeville and Ocho Rios e.g. two to three hours daily of free service for public service programming will probably continue after the termination of the funding under this project. Further, it is expected that after two years cost-sharing formulae between the agricultural and other ministries and JBC will have been developed to cover staff expenses in following years.

The JBC will manage the project with assistance from a U.S. contractor who will backstop the project. In Jamaica, the overall project planning will be carried out by a team of representatives from the collaborating organizations; detailed planning and implementation will be the responsibility of a radio programming team including JBC, Ministry of Agriculture and technical assistance personnel. The summative project evaluation will be carried out by the U.S. contractor, through participation of local evaluators, as well as inputs from JBC and the Ministry of Agriculture personnel. The evaluation and implementation elements of the project will work closely together, since formative evaluation of program effectiveness is a key element in ongoing program planning.

I. B. 6. AID Administration

The project will be funded by DS/ED funds from this project. DS/ED funds will be transferred to the Mission with an understanding that DS/ED and the Mission will jointly manage and review the project. US AID/Kington has expressed its strong support for the implementation of the project and has collaborated in the development of the plan. See attached cable, May 1979. (Attachment 5)

I. . 7. Staff Implications

This sub-project will require .50 person months per year of DS/ED staff time to monitor.

I. C. SUMMARY OF FINDINGS

1. The lack of appropriate, timely and relevant information on agricultural practices, technologies and new techniques as well as on sources of credit, fertilizers etc. are often a major obstacle to rural development. Targeted radio programs can be effective supports to development projects when used in close consultation with extension agents.

2. The Pindar Rivers-Two Meetings Watershed project in integrated rural development has an extensive network of extension agents to provide agriculture information to the area's farmers and it operates a number of demonstration plots. The addition of a radio program component to these extension activities can increase the effectiveness of the extension activities, the frequency and relevancy with which farmers can be reached, as well as the number of farmers which can be reached.

3. The effective use of local radio in support of the integrated rural development project depends on the close linkage between the agricultural project and the message development process and participation of local farmers in message development.

4. It is desirable to integrate the experience this project will gain into other related programs and activities in Jamaica and other areas, e.g. the Huellaga River Area Development Project in Peru.

5. The conclusions drawn from these findings are that this project is needed to aid JBC and the Ministry of Agriculture, or other development sectors in developing mechanisms for collaboration, as well as in gaining expertise in planning and implementing development support communications systems. This project will form a sound basis upon which future collaborative projects can be built and upon which JBC can define its role in development support communications.

I. D. PROJECT ISSUES

1. How will the broadcasting activity, with its own management hierarchy, relate to the local management of the IRDP which is run by the Department of Agriculture? The local management arrangements of the project will be crucial to its success. Required will be a very close liaison between the activities of the rural development project and radio program production as well as a process to ascertain the reactions of the farming audiences in a continuous and intensive manner. Every effort will be made to implement a structure which will satisfy these requirements.

2. Can Jamaica afford to continue this rural broadcasting activity after AID support ceases? The marginal operational costs of radio programming for the rural development project are not expected to be major, including primarily staff time and air time. To ensure continuation of the radio programs, efforts will be made to develop arrangements between JBC and development agencies which will permit continued financing of this service.

3. Should interative communications also be encompassed in the project? In recent discussions, the lack of two-way communications between the extension offices and the agents in the field was identified as a serious problem in the project management and in the effectiveness of the extension activities. The telephone system in the project is underdeveloped. An additional amount of $50,000 to $75,000 could provide such a two-way system, using radios. It is not encompassed in the present project budget.

II. PROJECT BACKGROUND AND DETAILED DESCRIPTION

II. A. BACKGROUND

In early 1978 JBC approached the AID mission in Kingston with a proposal and request for funding for a local radio station in Mandeville. The proposal also included a video component and a local telephone call-in system. The mission asked DSB to consider funding. Through a series of meetings with JBC and Ministry of Agriculture officials, the present plan was developed. It is in direct support of the $13 million Integrated Rural Development Program in the Pindar River-Two Meetings areas.

II. A. 1. The Problem

The following description of the overall problem is taken from the Mission's project paper on the Pindar River project.

Role of Agriculture

Agricultural Sector Performance

The performance of the agricultural sector has been disappointing in recent years. Basic infrastructure has largely been ignored; credit channels are cumbersome and not effective in reaching small farmers on a timely basis; and the marketing system rests largely upon a disjointed system of "higglers," commercial middlemen who reap much of the profit. Few incentives have been provided for the farmer, with the result that rural-urban migration has been accelerated (especially among the younger rural inhabitants newly entering the labor force), and idle land has been increasing to the point that an estimated one-third of potentially productive agricultural land is not under cultivation.

The GOJ is attempting to revive the economy by an immediate stimulus in the form of an Emergency Production Plan. A key element in the plan is the revitalization of the agricultural sector, through the provision of credit and reorganization of the marketing system. The plan calls for a 30% increase in basic food production

during 1977. While it appears doubtful that this goal can be reached in the time frame originally established, given capital manpower limitations at the planning level, its ambitiousness is nonetheless indicative of the growing belief among GOJ officials that Jamaica must act quickly to reverse the declining trends in the agricultural sector.

Rationale

As previously indicated, the small Jamaican farmer has been given sporadic, cursory assistance in terms of subsidies and emergency aid -- probably designed for political reasons, and not necessarily for increasing production. The target group in this program is the small, hillside farmer who is characterized by an average per capita income of $J265 per year, and land holdings of 2.9 acres, of which nearly all is on slopes between 5 and 30 degrees. There are 150,000 of these farmers in Jamaica and 4.000 in the Two Meetings/Pindars River project area. These watersheds are two of the most important of Jamaica's 18 severely eroded watersheds, preservation and development of which is regarded by the GOJ and UNDP/FAO advisors as essential to the long-term future of Jamaican agriculture. The 4,000 farmers and their families, plus an additional 1.000 landless laborers or rural dwellers and their families, derive their livelihood from farming and related industries in the watershed area.

Nearly all of Jamaica's domestic food is produced by farmers occupying small, hillside plots. Further, 28% of all land in Jamaica suitable for agricultural production is on slopes from 10 to 20 degrees. The flat land is often owned by larger farmers, and is principally suitable for large-scale farming operations, producing such crops as sugar cane, bananas, and coconuts. Land that is not being used productively is gradually being purchased by the GOJ and resettled with landless small farmers. This is a long-term proposition, however, and one which addresses neither the plight nor the productive potential of hillside farmers.

The long-run rationale for the five-year program is based on the need to increase agricultural production on small hillside plots, on the need to protect Jamaica's important watersheds from further erosion, and on the need to strengthen the capabilities of the Ministry of Agriculture's human resources. The project will aim at developing an agricultural production model that can be replicated on small hillside farms in Jamaica's other watersheds. Soil conservation activities and proper farming methods are essential ingredients to sustaining a base for agriculture and increasing agricultural production. Soil conservation activities facilitate control over water resources, both on the small farm and downstream in the river valley, and are a precondition for effective water resource management, irrigation schemes, and dam construction at a later date.

Early benefits from soil conservation measures are increased yields and production when farmers are able to use multiple-cropping. intensified farming techniques, with higher-value crops on land that has been terraced, will not wash away with heavy rains, and will allow the moisture to soak in rather than run off.

The soil conservation measures are expensive. However, without attempting to quantify downstream benefits in dollar terms, the program has sufficient merit judged only by production increases on land treated by soil conservation measures. Through innovative yet modest approaches in agricultural extension, marketing, and input supply systems, the small farmer should be able to more than double his average yearly income.

The rationale for an integrated rural development approach is based on indications that rural living is not attractive to the younger population. Employment opportunities are limited; the work is hard and the pay low; housing is often substandard; amenities such as water and electricity are often unavailable; and social services are poor. Thus, rural-to-urban migration increased significantly during the 1960s and 1970s, adding to population and employment pressures in Kingston and other metropolitan areas. This program will attempt to improve the standard

of living of a relatively homegeneous and discrete population of 30,000 persons in two specific watersheds, thereby setting the stage for replication throughout Jamaica.

The overall strategy of this program is embodied in its major objectives, which include an improved standard of living, increased rural incomes, increased long- and short-term employment opportunities, increased agricultural production, erosion control, and a replicable model. These objectives will be achieved by carrying out soil conservation activities on a major portion of the land in the project area by instituting a home economics program in the project area, and by strengthening local and national institutions to provide credit, marketing, and agricultural extension services to the small farmer, thereby increasing agricultural production and living conditions. Employment opportunities will be increased in the short run by providing nearly 600,000 man days of employment through the soil conservation activities alone. Long-term employment opportunities will be created by the increased need for labor generated by establishing continuous and intensified cropping techniques. Other short-term employment opportunities will be created by constructing or rebuilding rural roads, and applying erosion control measures on river and stream banks (300,000 man days); and through reforestation activities (200,000 man days).

II. A. 1a. The Pindar River-Two Meetings Watershed Integrated Rural Development Project: Extension Services.

The communications activity will have to be closely related to the extension program. For the activities of the extension services of the project, the project area is divided into 20 sub-regions with two extension agents covering each sub-region. Approximately 200 farmers are settled in each. The 40 extension agents, after receiving their initial training, are meeting on a monthly basis for follow-

up training and reporting. The activities of the extension agents follow three approaches:

1. interpersonal communication between extension agents and farmers on individual and group basis;
2. establishment of demonstration plots;
3. development of graphic and print material

The project also envisages to have an extension staff of 5 full time home economists and 8 field representatives in the watershed areas to work with the female population in the areas of homemaking matters and child rearing responsibilities. The home economists are an integral part of the project's overall extension activities.

The Pindar River project thus has an active extension component. The addition of a radio program component to these ongoing activities is seen as a valuable reinforcement mechanism, since the extension agents cannot be available whenever and where-ever needed. It will allow the extension activities of the project to reach more people more frequently. It will assist in motivating the farmers to adopt new techniques. It will provide current market information, increase knowledge of credit services and marketing opportunities. It will reinforce in-service training of the extension agents in the field. It will open an additional channel of communications with and among the hillside farmers.

More specifically, the use of radio is foreseen to assist in the following ways. Radio programs can be broadcast to start off group meetings, freeing the extension agent from having to make presentations themselves, but putting them in the role of resource persons for discussions. Reportedly, many extension agents

would feel more comfortable in that role. Also, the project extension management perceives the use of tape recorders to collect feedback from the field as a potentially important element in the flow of two-way communications in the project overall.

In-service training of the extension agents in the present project is limited to a one-day meeting once a month. This training component can effectively be inforced by radio broadcasts.

Acceptance of new agricultural practices or techniques by small farmers and farmers' wives is preceeded by a difficult process of decision-making on their part. These decisions can best be made after pros and cons have been weighed individually in the family as well as in discussions with fellow farmers. The radio station will support this process of exchange effectively by airing locally produced tapes, interviews, etc. which directly expresses concerns and ideas of individuals and groups of farmers.

To bring about the type of programs outlined above, as well as the underlying processes, staff is required which has a good understanding of development support communications. Presently, neither the JBC nor the Ministry of Agriculture have personnel available with this type of training.

The JBC has set as its goal for the next 5 years a close integration of its broadcasts with ongoing development programs, such as the Pindar River-Two Meetings project. In order to accomplish this goal, the JBC staff needs to receive training in specific development broadcasting techniques. Also, the broadcasting facilities need to be supplemented to provide for local program origination, following support of specific local development program activities. Additionally, the closer integration of the broadcasting system with development programs re-

quires institutional co-operation in areas which have only been explored on a limited basis in Jamaica and elsewhere. These areas range from policies regarding the costs of air time for development programs, to the interagency composition of production teams, to the co-ordination of production and broadcast schedules with milestones of the development project. The project under review here will present a major milestone in bringing the operations to JBC closer to its established goals.

II. A. 1b. Rural Radio Plans in Jamaica

Radio can be a particularly effective tool to make development information available to the rural population. In a sample survey conducted by JBC, 2,522 out of 4,000 farmers throughout Jamaica identified this medium as a prime source of agricultural information. Further, most farmers in Jamaica, including the project area, appear tc have access to radio sets. These two factors are not sufficiently exploited for development. The present use of radio for agricultural development is not judged satisfactory as the programs lack adequate regional or local inputs as well as distribution systems to develop programs tailored to the needs of specific regional development activities, such as the Pindar River Project. Today, agricultural information by radio is limited to daily noon-time broadcasts of general topics for national coverage. Furthermore, the quality and relevance of those programs is limited. The main reasons are the lack of people skilled in relevant development communications techniques and the technical characteristics of the radio broadcasting system does not allow for local and regional program origination or regional distribution. Also, the present radio coverage extends to only 70% of the Jamaica land area and Central Jamaica has areas where coverage is a problem. The problem of coverage is particularly pressing in the night hours when the coverage of the present central AM transmitter is generally reduced. Night coverage is crucial to the project, since the extension services report that most farmers will prefer to listen to agriculture broadcasts after their days' work.

The Jamaica Broadcasting Corporation (JBC) has identified in its five-year Master Profile a close tie-in with specific and general development goals. JBC recognizes that this objective must be pursued in three ways: one is the provision of radio broadcasting facilities which can serve regional development interests,

The experience of the BVE project, for example, has shown that a key to effective radio support of agricultural extension is the local nature of the message. This means that the message must be closely articulated to needs within the sub- watersheds of the project area and must also be responsive to the continually changing problems and conditions faced by agriculturists, in terms of weather, availability of agricultural supplies, fertilizers etc. The essence of the JBC project is to bring the BVE experience into the operational environment, i.e. integrate it into a national broadcasting system. New factors to be dealt with under these circumstances are: lesser staff, commercial pressures and a combination of local and national broadcasts. The second is the training of JBC staff and staff from other agencies in development support communications to provide relevant programs. The third is the close cooperation between JBC and agencies with ongoing and planned development programs in a given region to jointly prepare integrated plans. Presently, general cooperation exists between JBC and the Ministries of Education, Agriculture, Health, Youth, Sports and Community Development. A formal structure for collaboration at the local level will be required for the planning and implementation of this project, as well as for future operational systems.

The primary objective of this activity is to aid rural development in Central Jamaica. It could however, play a significant role in the future development of radio broadcasting for rural and social development programs in the rest of Jamaica It will give the development agencies, as well as JBC experience in using radio broadcasts for rural development.

It will also give JBC a much needed test case for community broadcasting which could influence the future development of Jamaica's broadcasting growth. In doing so, it will produce an appreciation of the human resource requirement including training needs, utilization support, production skills, and administrative requirements.

II. A. 2. Project Rationale

The project is based on the rationale that effective incorporation of radio programs produced locally with close participation of the project extension services and the farmers themselves, will augment the effectiveness of the extension services activities. A further rationale is that the project will familiarize the Ministry of Agriculture and other development agencies with the use of radio programs in specific development projects, a potential effective tool to support development behavior and attitudes in the target audience. Also, the project will give the JBC the experience of supporting the extension of specific development programs and will increase the effectiveness of the radio broadcasting system as a development tool.

The choice of radio as the medium is based on the fact that radio has proven its effectiveness in reaching farmers (see Appendix 3). Also, most farmers in Jamaica and in the project area own or have access to AM transistor radios. Further, the cost of radio production for ongoing operational services are manageable. As well, radio production technology is flexible and portable. It can be used with ease in the field not only by trained production personnel, but also by extension agents, home economists and the farmers themselves. This factor is important to stimulate participation by the farmers and their spouses in program development and will develop the local radio station into a medium by which experiences will be shared among farm families about the project. This, in turn, will provide the rural development project with feedback on the effectiveness and implications of its activities.

The radio programming component can also be built into the extension services of the rural development project without causing disruption in the existing structure. It is complementary. The project will extend extension worker,

including home economist, activities by repeating and reinforcing their messages and and it will also assist the extension workers in keeping up-to-date with their own tasks in the project. The project will allow other development projects in the area to support their activities by radio messages. Since these applications are secondary to the project, they will be developed when the project is underway.

The problems and opportunities being faced in Jamaica are similar to those in many other LDC's. Ambitious rural development projects are underway and radio broadcasting institutions are active, but seldom is their a close articulation between the two. The AID/W (DSB) involvement in this project will bring with it an ability, and responsibility to diffuse the experience that is developed far more widely.

II. A. 3. State-of-the-Art

Several generalizations of past and present experiences in the use of radio programs in support of agricultural and rural development can be made (see Appendix 3 for summaries of experiences). Each of these contribute to the success of a project.

a) Radio programming can be an effective tool in supporting changes in agricultural practices, particularly:

- If it is carefully combined with interpersonal contacts by extension agents, with the development of demonstration plots, and with other tools of agricultural extension.
- Only when the message is made relevant by being localized and highly specific to the situation faced by the farmer audiences at a particular time.
- When audiences feel that their concerns are addressed in the programs. This can be facilitated by formative feedback from the field.
- When educational materials are packaged interestingly to maintain interest.
- When its educational messages are interspersed with entertainment and news.

b) Radio can stimulate development participation when the technology i.e. tape recorders, is made explicit to the audience by offering hands-on experience in recording and editing their own programs.

c) Radio can provide important support to on-site training of extension workers. when it is combined with other in-service training activities.

d) Radio is an effective tool in providing up-to-date agriculture information and reports about availability of supplies, marketing opportunities or short-term changes in desired practices caused by weather conditions, insects or other factors.

In short, there seems to be a general agreement that radio can be effective in support of agriculture and rural development, if it is used well. The task at hand is to develop and implement a service oriented project which draws on existing experiences and integrates them into the requirements of the project.

II. B. DETAILED DESCRIPTION OF PROJECT

II. B. 1. Project Purpose

The program goal of this project is to develop communications methods and strategies and administrative arrangements by which the Jamaica Broadcasting Corporation (JBC) can support the information and educational elements of programs in sectors such as agriculture, health, literacy education.

The project purpose is to develop and demonstrate effective means for designing and using the programming of a local radio station in support of the extension activities of a major AID supported Integrated Rural Development Project (IRDP) in the Pindar River-Two Meetings Watershed area. To this end, the project will develop a programming and administrative model which will help farmers and their spouses and families in the project area obtain relevant agricultural,nutritional and other information and to learn new practices. The model will also help the extension activities of the rural development project to augment its information as well as its farmer and farm family education activities. The goals of the extension activities of the project are to assist participating farmers to develop their farm plans, to select adequate crops and cultivation techniques, to improve home making and child raising activities and to make fullest use of project inputs and services, marketing and credit. Specifically, the project will develop radio programs in support of the activities of the Integrated Rural Development Project and it will implement an administrative structure which will provide to the radio program development continuous feedback from the farming population and the project extension team, including the project home economists.

A subsidiary purpose of the project is to use radio to improve the effectiveness of programs of other development agencies in reaching the farmers in the area.

Other agencies will be using the JBC system to broadcast their own radio programs for their particular audience. Whenever necessary, JBC producers will be available to provide assistance in the development and production of development messages in the project area.

Another project purpose is to provide the JBC with a test experience in developing and implementing a radio broadcasting structure throughout the country which is responsive to the needs of the regional and local development programs. In the same vein, the project serves as a pilot project for other country settings, where efforts are being made to use communications strategies to increase the effectiveness of agriculture extension activities, particularly in support of the adoption of new practices by the farming population.

II. B. 2. End of Project Status

The end of project status indicators which will show the achievement of project purposes are:

(1) The operation of an effective local radio service in support of information and education activities of the Integrated Rural Development Project - the Pindar River-Two Meetings Watershed - including participation of the farming population in message development.

(2) The operation of an effective local radio service in support of other development programs and issues of concern to the populations in the area of coverage, including health education.

(3) The existence of an information base upon which decisions regarding the replicability of local radio stations in Jamaica will be made. This will include issues of cost, training, staffing and requirements for institutional co-operation.

II. B. 3. Project Output

Outputs required to achieve this end of project status are:

(1) The implemention of a local radio station which responds in terms of its activities and message design to the requirements of the Integrated Rural Development Project, as well as to those of other development concerns.

(2) The airing of about 500 hours of radio broadcasts in support of the extension activities of the Integrated Rural Development Project, and of up to 1,000 hours of radio broadcasts related to literacy programs, public health care, etc.

(3) The development of an administrative structure which allows active participation by development agencies as well as the population in the programming and message design.

(4) The existence of host country personnel trained in various facets of development support communications including production, utilization and evaluation.

(5) The provision of 12.5 staff months in short-term training, and of 48 staff months in long-term training as well as training provided by the Technical Assistance Personnel.

II. B. 4. Required Inputs

This project will require an expenditure according to the following schedule (see budget section for details).

AID Funded (US $)	TOTAL
Technical Assistance	224,131
Equipment	200,924
Training	54,945
Miscellaneous & contingency	50,000
TOTAL	550,000

Host Country (in Jamaican dollars 1$ U.S. 1.7 $J)		
Salaries	154,440	
Operating Expenses	47,000	
J$	201,440	118,000 US

Technical assistance will include one full time experienced agriculture communications project planner and broadcaster, as well as consultant support in agriculture software production, in program production for farm women as well as in evaluation design and methodology.

Training includes short-term training in formative evaluation and software production as well as study tours to related projects. Training funds will be used for staff from JBC, the Ministry of Agriculture as well as the home economics component of the IRDP. Long-term training in development support communications will be shared by JBC and the Ministry of Agriculture.

Equipment costs will go into the procurement of studio and transmission equipment and associated expenditures, such as a 4-wheel vehicle, tape recorders,etc.

Host country contributions will include all local staff costs, rental of facilities and any required structural changes to facilities, as well as installation and maintenance costs.

The project will require 0.5 person months per year of DS/ED staff time.

II. B. 5. Critical Assumptions

The following conditions required for achieving project purpose are assumed:

1. that the indicated host country personnel and policy committment to the use of radio in support of agricultural development (and other sectors) will in fact support its initial and continued use;

2. that the broadcasting agency is indeed committed to utilizing its staff and programming expertise in support of specific development programs and goals;

3. that mechanisms for cost sharing of production, distribution facilities and air time can be developed to facilitate continuous operation of radio services dedicated to development support communications.

II. B. 6. Detailed Description of Project Methodology

The detailed approach to design and implementation of this project is based on elements known to be important from past experiences with the use of radio in rural development programs (see state-of-the-art section).

1. Operations

The radio station will originate each day up to three hours of locally produced public service programs. During the remaining daytime hours the station will rebroadcast national programs originating in Kingston. It is planned to use approximately 1 hour daily for agricultural broadcasting in support of the Integrated Rural Development Project. The best hours for these broadcasts will be established in a survey of the farming audience. The extension agents in the project area consider the after-work hours to be most appropriate.The station will also have the flexibility to switch from national to local programs for short spot announcements throughout the day.

2. Message selection and production

The primary goal of the project is the support with radio messages of the activities of the Integrated Rural Development Project. The message selection and timing will therefore closely follow the agenda of activities established as a framework for that project. The themes or messages to be developed will be identified in advance, corresponding to periods of the agricultural cycles and intervention desirable.

The agriculture content of the messages will be approved by agronomists responsible for the Integrated Rural Development Project to ensure facts and consistency of the information with the overall project information activities.

Similarly, the home economics content of the messages will be approved by the head home economist of the project. The following areas are the main themes of the radio programming:

- assist extension services to impart information on soil conservation practices; on new seeds, fertilizers and other agriculture technology; on raising foodstuffs for the family table, on nutrition practices and other matters related to home making and child raising.
- motivate and encourage farmers and their families to adopt soil conservation measures and other desired measures;
- provide detailed explanation on the 'how to' of soil conservation and farm management such as the care and maintenance of terraced land; as well as on preparing farm plots for growing vegetables, on raising and caring for chickens and rabbits, etc.
- support extension service to impart information on all aspects of the project such as availability of credit, road construction, the electrification component of the program, marketing opportunities, etc.

Programs will be developed with the farmers and their families as primary audiences, but also for the extension workers and home economists to keep them up-to-date on interventions and techniques.

Through the extension agents and economists and a 'roving reporter' cum formative evaluator and the broadcasts themselves, the community-at-large will

be encouraged to participate in the program development. Tape recorders will be provided to the local extension agents, the home economists, to tape interviews and discussions or to encourage the farmers and their families themselves to use the recorders to produce their own messages. Other types of feedback will strongly be encouraged such as letters or visits or phone calls to the radio station. The role of this participation and feedback from the community is considered vital to the success of the project.

The actual programs to be aired will be a mix of live and pre-recorded programs. They will be packaged as information items as well as in the form of entertainment programs. Further, related news items and general entertainment will be aired as well. Also, related spot announcements will be broadcast between regular national radio broadcast programs during the day.

3. Message Utilization

The farmers and their spouses and families will listen to the radio programs individually as well as occasionally in groups, convened by the extension agent and home economists. For the latter purpose a schedule of broadcasts particularly conducive to group discussion will be established on a predetermined basis to assist the extension workers and home economists in convening these meetings. The extension agents will also maintain a limited tape library of programs which can be played on demand locally.

A number of regularly scheduled on-site training and refresher programs for the extension agents and home economists will supplement their monthly in-service training meetings.

4. Operational Management

The JBC will manage the activity out of its regional facilities in Mandeville. For the production of programs in support of the IRDP, a team of advisors will be set up, including the JBC Station Manager, the manager of the Pindar-River Project and a representative from AID-Kingston. They will determine and monitor the overall direction of the project.

The actual production of the radio programs will be carried out by a team composed of representatives of the Ministry of Agriculture-IRDP staff and of the JBC. The activities governing the co-operation of this team will be tightly scheduled so as to ensure maximum feedback into the radio program development.

Similar arrangements will be implemented with other ministries, which will actively use the radio station facilities.

5. Staffing

The local radio station set up in Mandeville will be provided by the JBC with adequate staff to allow for effective operation and program production of up to three hours daily. Of this staff, one producer who will double as announcer, will be allocated full-time to the Integrated Rural Development Project, as will be the assistance of a script writer and the services of technicians, operators, etc., on an as required basis. The services of actors will be contracted as required.

The Ministry of Agriculture will provide two staff persons to the project. One will be an agronomist who will develop and verify the content of the individual broadcasts. He/she will be closely liaisoning with the rural

development project and will co-ordinate prior approval of technical information as well as critical timing of the messages with the manager of the rural development project. The agronomist and producer will then develop message format with input from the roving reporters. This person will spend a considerable portion of his/her time in the field with extension agents and with farmers, gathering information on the programs, their effectiveness and acceptance by target audiences. These impressions will be related verbally or captured on audio tape for broadcast by the station. A formal structure of visits to the field as well as reporting back to the production team will be established to ensure optimum utilization of this feedback from the field.

6. Training

Training is considered an important factor in the development of the project in terms of short-term and long-term goals. Short-term training related to various facets of development support communications for JBC and Ministry of Agriculture staff will provide the station with the necessary trained resources to operate the project effectively. Further, a technical assistance contractor will assist the project in its first year and will continue on-the-job training.

However, in order to ensure that the radio station can truly serve as a pilot project for future planning and operation of radio broadcasting in support of development programs, two M.A. students, one from JBC, one from the Ministry of Agriculture, will be trained under this project in development support communications. The Government of Jamaica will carry staff costs for all personnel (for details see budget).

7. Equipment

With the exception of limited pilot facilities in Montego Bay the present radio broadcast facilities for the JBC allow only a national program feed out of Kingston, with no production facilities in any of the regional centers of the country. Such a distribution system makes it impossible for radio programs to support any regional or local development activities in a meaningful way, since the whole nation will be exposed to the programs.

In order to achieve the objectives of the project and to provide support to the Integrated Rural Development Project with specifically designed and tailored radio programs, equipment for a local radio station will have to be purchased as well as AM transmission facilities which ensure the coverage of the rural development project area. AID will provide for the studio and transmission equipment. ($106,924). JBC will carry the costs for local facilities structural changes, i.e., sound insulation of the studio. JBC will also carry operating expenses of J$23,500 annually.

8. Project Planning

The project planning falls into two phases.

In Phase One, which will last approximately six months, the project plan will be established including the following:

- the technical equipment will be purchased, tested and installed;
- short-term training and visits to related project sites will be undertaken;
- activities will be initiated which will lead to community participation;

- a survey will be conducted to identify listening preferences and to establish a profile of the target audience with particular reference to communications patterns;
- extension agents and home economists will be trained in the use of tape recorders and interviewing techniques; they in turn will train the farmers and their spouses;
- general program schedules and content areas will be established for the radio programs to tie into cyclical activities of the IRDP;
- Methods for determining the most effective educational and broadcasting techniques will be developed.

In Phase Two, program production will begin and the station will go on the air, carrying out its project plan. An eighteen month time frame is considered adequate for this phase to put in place an effective continuous radio broadcasting service in support of localized development activities as well as to obtain sufficient information upon which the project goals can be measured.

II. B. 7. Evaluation

Evaluation of the AID project inputs in achieving the goals of the project (see also Output End of Project Status sections) will be undertaken in 3 phases by AID/W and AID Kingston. It will be based on contractor reports, feedback from JBC and the Ministry of Agriculture as well as from other sources, such as short-term consultants, reactions to publications and seminars as well as a discussion with participants.

Two formative review meetings will be held, nine months and 18 months into the project. After two years, a final evaluation meeting will be held.

The specific evaluation arrangements are based on the premise that evaluation of the project is to be a joint responsibility of AID, the JBC and the Jamaican Ministry of Agriculture. Evaluation arrangements include AID support of an in-country evaluator for summative evaluation who will manage the evaluation under the general guidance of the US contractor with additional specialized assistance from short term consultants.

Formative evaluation, a key element particularly in sortware development, will be joint responsibility of the JBC and IRDP. Staff members of both agencies will receive short-term training in formative evaluation techniques.

Evaluation Elements of this project include the following:

(a) formative evaluation of the activities designed to encourage community participation;

(b) formative evaluation of the programming activities (ongoing);

(c) periodic assessment of project implementation (ongoing);

(d) assessment of the impact of the local radio facilities on the ongoing development projects (quarterly and second year) as well as on community organization;

(e) summative evaluation after 24 months to include recommendations ensuring continuing use of the radio station for development support communications and recommendations regarding the further application to JBC's operations;

(f) assessment of ways in which radio broadcasting can be used to support the Pindar Rivers project in its goal to motivate farmers outside the project area to follow the techniques developed in the project.

The analysis of the project will examine the following specific issues:

(a) participation by farmers in content determination and development;

(b) women participation in the project, their listnership, interest and knowledge or motivational gain;

(c) listnership to tne agricultural programs according to program format, hours of broadcasts, etc.

(d) socio-economic background of audiences and motivational or knowledge gain according to this background;

(e) program analysis of content, format and type of message (motivational, informational or instructional);

(f) radio listnership and perceived effects versus other extension activities.

III. PROJECT ANALYSIS

The long-term impact of this project will be closely tied to the effects of the integrated rural development program and other development programs. The various factors are analyzed in detail in those program plans. The main contribution of the radio component will be to reach more people with more information about development activities, to obtain feedback from the rural population on a broad scale and to provide an additional stimulus for the people to participate actively in development activities.

A. Technical Analysis

Overall Project Methodology

Previous sections of this project paper have placed the project methodology in the context of past and on-going experiences as well as in the context of the specific requirements of the Integrated Rural Development Project. In sum, DS/ED and the Kingston Mission find the project technically sound, since it makes use of important experiences gained in the use of radio programs to support agriculture and rural development. Many of these experiences have been supported or analyzed by AID in its activities in the use of media in formal and non-formal education, and will be integrated into the project through training, technical assistance, and consultations.

III. B. Social Analysis

The agricultural and other information provided in this project will, of course, be specifically tailored to serve the needs of small farmers in this region. In addition, the rural population of Central Jamaica is expected to also benefit from the opportunity it will provide for the people to have more direct influence on the development of the radio programs. Community involvement and the development of appropriate feedback mechanisms will, it is hoped, help the population to change from a role of consumers of radio broadcasts to participants. This process can be expected to contribute to community mobilization and integration as it may develop shared values and perceptions of development needs and can provide impetus for community actions to satisfy these needs.

Women in the IRDP area are either farm operators or farmers' spouses. They are expected to share equally with men in the benefits of the project, since they will be actively encouraged to participate in all programs to be developed. Special attention also will be paid to their role as home makers and mothers. The IRDP has a very high percentage of female staff (about 40%) in functions such as extension agents and soil conservationists. Womens' concerns therefore can be expected to be an integral part of the radio programming.

III. C. ECONOMIC ANALYSIS

The proposed radio station will provide the following benefits with economic implications:

a) Immediate and long-range benefits to the rural population, as a result of increased communication with development agencies and/or participation in the development of the broadcasts, leading to earlier adoption of new and relevant practices, which are designed to yield increases in farmer income.

b) Immediate and long-range benefits to the development agencies as a result of increased communication with the target population, leading to increased efficiency and effectiveness of their activities.

c) Immediate and long-term benefits to JBC as a result of staff training and of improved and flexible equipment and transmission facilities.

The economic benefits accruing to the rural populations will be difficult to measure as the radio broadcasts will be designed to reinforce and support the activities of the Integrated Rural Development Project. Changes in agricultural and other practices will be a result of the total project activities. However, a survey of listening habits and participation in the activities of the radio station will provide a base upon which the effect of the radio station can be measured.

The addition of the radio component to the development activities in Central Jamaica is economically sound because the information flow between development projects and the population and vice versa is reported to be insufficient and because radio is an economical means of reaching the population.

Further, the role of a local or community radio station will be particularly significant as it should gather and air concerns of the local population and thus provide valuable feedback to the development agencies regarding the effects (and side effects) of their activities. Changes in or modifications of development program activities as a result of community participation can be identified and evaluated in regard to their economic effects.

The investment in the hardware to carry out the project is justified. The present Jamaican radio broadcasting system cannot facilitate local and regional broadcasting and therefore cannot be used to support specific regional development activities. The present system does not provide for access by the local population to the studio and transmission facilities. Such inputs have shown to be very valuable for development activities. It is hoped that the technical systems featured will serve as a prototype for other community radio stations, forming part of the JBC network.

The training of JBC staff and staff from other development agencies in development support commuications and related areas is a solid long-term investment as these skills will be useful to other development projects, and

they will be crucial for the future of JBC if it is to become more closely development oriented in its programming. At present, not many individuals with these skills are available in Jamaica. Over time, the results of these two types of investment can be assessed.

III. D. BUDGETARY ANALYSIS

The JBC has allocated permanent staff positions to the operation of the radio programs. The cost of continued operations and maintenance of the local radio station can be carried by the JBC. The Jamaican government, primarily through the JBC, is committed to support the two year project with an equivalent of about US $110,000 in staff and operating expenses.

This grant will provide for technical assistance, training, equipment purchase and evaluation. (also see Input Section)

1. Summary

AID Funded ($ US)	FY 79	FY 80	Total
Technical Services	244,131		
Equipment	200,924		
Training	54,945		
Miscellaneous & contingencies	50,000		
			550,000

Host Country ($ Jamaican; 1 $ US 1.7 $J)			
Salaries	83,700	70,740	
Operating Expenses	23,500	23,500	
		$ Jamaican	201.440
	≈	$ U.S.	118,000

2. Technical Services	Expenditures FY 79	Total
Salaries		
1 Project Manager (1.5 months p.a. x 29,000)	7,248	
Travel & Per Diem Jamaica 4 trips - 12 days	2,400	
1 Secretary (1.5 months p.a. x 12,000)	3,000	
Benefits 20%	2,050	
1 Long Term Advisor - Communications Methods (12 months @ 30,000)	30,000	
Allowances, Benefits & Travel, etc.	50,000	
Services of Actors	10,000	
Total	104,698	
Consultants		
1 Consultant - Women's Programming (3 months - including Per Diem; benefits, travel)	17,080	
1 Consultant - Research Methods (3 months, including Per Diem; benefits, travel)	17,080	
1 Consultant - Agriculture Radio Production Techniques (3 months - including Per Diem; benefits, travel)	17,080	
1 Principal Evaluator - In-country (4.5 months p.a. @ 5,000)	10,000	
Travel & Per Diem	1,000	
Research Expenses	500	
1 Evaluation Assistant - In-country	4,000	
Travel	1,000	
- Evaluation Consultants (45 days, plus Travel & Per Diem	8,400	
	76,140	
Subtotal		180,838
Overhead & Contingency (35%)	63,293	63,293
Total		244,131

3. Equipment

	FY 79	Total
1. Transmission Equipment (See attached schedule) (Appendix 4)	56,124	
2. Studio Equipment (See attached schedule) (Appendix 4)	50,800	
3. Vehicles		
4-Wheel Drive	9,000	
Trailbike	1,000	
4. Consumables, Supplies, Tapes, etc.	10,000	
5. Spares, Expendables	12,000	
6. Freight, Insurance	12,000	
Total		150,924

4. Training

	FY 79	TOTAL
1. Out-of-Country U.S. Short Term 4 People - (1Month Each - Include Tuition, Per Diem & Travel	8,000	
U.S. and 3. Country - Short Term 3 People - Study Tour - Visits to Related Projects	10,000	
U.S. - Long Term 2 People - M.A. or Equiv. (Incl. Tuition, Subsistence, Travel)	30,000	
2. In-Country Training Workshop for Extension Workers (40 People @ 3 days, Per Diem & Transportation)	5,000	
In-Country Training Workshop for Home Economists (15 people @ 3 days, Per Diem & Transportation)	1,945	
		54,945

IV. IMPLEMENTATION ARRANGEMENTS

IV. A. ANALYSIS OF ADMINISTRATIVE ARRANGEMENTS

The JBC will designate management, production and operations personnel, including trainees to receive in-service, short-term and M.A. level training. The Ministry of Agriculture will designate two individuals to be seconded to the project, one individual for M.A. level training two individuals for short-term training as well as trainees for in-service programs. A US contractor will hire the personnel required to provide short-term and long-term technical assistance, including evaluation and will backstop equipment purchases etc. The JBC will provide for air time for the public service programs and will provide office space.

The JBC, Ministry of Agriculture and the US contractor will be responsible for the organization of an end-of-project seminar as well as a final report.

The capabilities to manage a project of this scope are available within the JBC, which is operating a much larger system. The special orientation of this project, however, requires the co-operation of a US contractor who has a successful record of management of similar types of projects in development support communications.

Within AID, DS/ED is providing 0.50 of staff time per year to manage the project.

IV. B. IMPLEMENTATION PLAN

Detailed elaboration of an implementation plan will be designed by the JBC and Ministry of Agriculture in Jamaica, by the US contractor and by AID/W and AID/Kingston in close collaboration. The plan, however, will follow the general timing discussed in the project planning section IV. A.8.

Beneficiaries of the project will participate in the decision-making during the elaboration of the detailed implementation plan and by providing continual feedback through the formative evaluation methodologies included in the project.

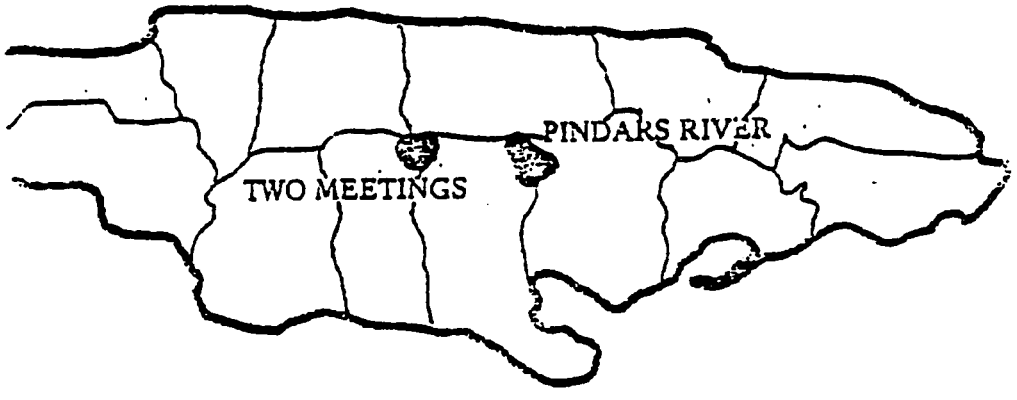
Joint management of the project by AID/W and AID/Kingston appears to be appropriate for this project. The mission is close to the project since it is supporting an ongoing mission funded project. AID/W is close to the project since it puts into service development support communications methods tested and tried in research projects and activities of AID/W.

Appendix 1

INTEGRATED RURAL DEVELOPMENT PROGRAMME

Appendix 1

INTEGRATED RURAL DEVELOPMENT PROGRAMME



PINDARS RIVER/ TWO MEETINGS PROJECT

A Jamaica Govt./ US/AID Project.

INTEGRATED RURAL DEVELOPMENT PROGRAMME

PINDARS RIVER - TWO MEETINGS PROJECT.

Introduction

As part of its current integrated rural development strategy to revitalize the agricultural sector and to reduce unemployment the Government has identified watershed areas deserving priority treatment, with respect to soil conservation. One such area is the Pindars River/Two Meetings Project. The Two Meetings watershed is located between the parishes of Manchester and Clarendon with its northern boundary bordering on the parishes of Trelawny and St. Ann. The Pindars River Watershed is located primarily in Clarendon and taking in a small part of St. Catherine.

Goal

The overall goal of the programme is to improve the standard of living of small hillside farmers in rural Jamaica. It is hoped that by achieving this goal that there will be less migration from the rural to the urban areas, because rural income would have increased significantly.

Sub-goal

The sub-goal is to establish an agricultural production model that can be replicated on small hillside farms throughout Jamaica. The model will be based on continuous multiple cropping techniques suitable for land that has been terraced or treated with appropriate soil conservation measures..

Specific Purposes

The specific purposes are:

(a) to increase agricultural production on small hillside farms in the Pindars River and Two Meetings Watersheds;

(b) to control soil erosion in the Watershed, thereby establishing an agricultural base for the future, and increasing the supply of water for both household and agricultural purposes;

(c) to strengthen the capability of the human resources in the Ministry of Agriculture.

Programme Components

The five-year programme will establish erosion control measures

as a means to introduce improved agricultural practices for increased production in the Pindars River and Two Meetings Watershed, comprising almost 30,000 acres and occupied by 25,000 persons. The project will be implemented principally by the Southern Region of the Ministry of Agriculture, in conjunction with the Forestry Department and the Ministry of Works (P.W.D.). The Agricultural Extension Service, J.A.S. and the P.C. Banks will play a major role in educating farmers and providing inputs, credit and marketing assistance.

Substantial long-term technical assistance and training will be provided to carry out the major components summarized below:

Erosion Control

Erosion control activities are subdivided into three major categories:

(a) *soil conservation*, including terracing, ditching, waterways and pasture lands on about 17,700 acres;

(b) *forestation* on about 5,000 acres; and

(c) *engineering works* including 22 miles of road construction/rehabilitation, river and stream control (check dams and embankment protection).

Demonstration and Training Centres

Five Demonstration and Training Centres and 50 small farm sub-centres will be established at the beginning of the programme to promote the benefits of land terracing and of multiple and continuous cropping techniques.

Farmer Organization and Services

The J.A.S. organizations, P.C. Banks and Co-operatives in the project area will provide the training and seed or initial capital, to ensure that key credit inputs, and marketing services are made more generally available, and economically beneficial.

Agricultural Extension

Agricultural Extension Officers will assist participating farmers individually and as groups, developing their farm plans, selecting appropriate crops, and cultivation techniques, and making fullest use of inputs and services. These officers will assist the farmers in making fullest use of the services of the J.A.S., P.C. Banks, A.M.C., and other institutions.

INFRASTRUCTURES

Electricity

The Government of Jamaica will provide electricity through the Jamaica Public Service Company for about 15,000 people in the two Watersheds.

Water

The major water need in the project area is the expansion of the central pumping facilities at Moravia and Two Meetings. The existing plants are now serving 25,000 persons throughout the watershed area, including villages and isolated communities-with a central water line near roadways. A second treatment plant is to be constructed at Two Meetings, and the capacity of the Moravia plant is being increased. When this work is completed, an additional 25,000 persons will be served.

Housing

The Government recognises the importance of housing for rural dwellers, and proposes the construction of about 140 houses over a 4 year period in the watershed areas. The units will each be small two-bay house of 16 x 12, constructed of concrete blocks, wooden support and a metal roof.

As part of the Land Lease programme, the Ministry of Agriculture is presently constructing a housing scheme at Crofts Hill. A portion of this land lies in the watershed area of the Pindars River, and will be terraced under programme activities.

The Farmers Role

For this programme to be successful and to be of the greatest benefit to the farmers themselves, their fullest co-operation is needed. The soil conservation treatment carried out on one farm must be similar to that carried out on all the other farms in the project areas. It is therefore necessary for farmers to give their consent and co-operation in having their lands properly treated.

It is estimated that the cost of treatment will be about $690 per acre. This will be for terracing, ditching and waterways. The Government has proposed to absorb 75% of the cost of the treatment and the farmer will be charged 25%. But since the farmer is unlikely to have sufficient cash available to repay his share, two ways of doing so are opened to him.

(a) he can work on the terrace activities and use his wages to repay for the treatment or

(b) he can repay through the P.C. Bank. The Government proposes the repayment over a 5 - 10 year period,at 8% interest rate.

Bench Terraces and hillside ditching will be used for vegetable crop which will return an income in 6 - 18 months. Orchard terraces will be used for food trees and will require longer pay-off time.

The farmer will be expected to maintain his treated land. If necessary, the P.C. Bank will lend him money to carry out the maintenance.

Appendix 2

PLANNING A WOMEN'S COMPONENT

INTEGRATED RURAL DEVELOPMENT PROJECT

TWO MEETINGS AND PINDARS WATERSHEDS

JAMAICA

Office of Women in Development
United States Agency for International Development
Washington, D.C. 20523

March 26, 1979

CONTENTS

Note: This report was prepared by Dr. Elsa M. Chaney, Office of Women in Development, USAID, Washington, and Ms. Beverley Samuels, Home Economics Officer, Integrated Rural Development Project, Christiana, Jamaica. Dr. Chaney is responsible for Parts I-III; Parts IV and V were prepared jointly by Ms. Samuels and Dr. Chaney. Although a draft was reviewed by the Project Director, the Rural Development Officer at USAID, and the Project Advisory Team, the opinions expressed here are those of the two authors. This document should be regarded as a preliminary statement of suggestions and possibilities presented by the Jamaica IRD for integrating women in development.

FOREWORD

The present report covers Phase I in what has been conceived as an ongoing relationship between the Office of Women in Development, USAID/Washington and the USAID/Government of Jamaica Integrated Rural Development Project already underway (1978-1982) in the Two Meetings and Pindars watersheds, Jamaica. Phase I, lasting two weeks, involved on-site discussions with the Project Director, the Advisory Team and many of the Jamaican staff, as well as with persons in the health, education and agricultural extension networks in the two areas. As well, many farm women in the Christiana area -- particularly in the districts of Silent Hill and Wild Cane -- were most generous in receiving us into their midst and discussing with us their hopes and problems.

Phase II will consist of a two-month consultancy in which several of the suggested avenues of work will be launched, after a period of "Inquiry" on the best ways of proceeding, to be carried out by the Home Economics Officer.

Both of us wish to thank those who were so helpful to us and so generous with their time during Phase I. First of all, we thank Dr. H. Patrick Peterson, Rural Development Officer, USAID/Kingston, for the original invitation and for initial orientation. Next, we are grateful to Mr. Henry Stennett, Soil Conservation Director, Ministry of Agriculture, and IRD Project Director, for his gracious reception and for his sensitive concern that the needs of women be addressed in all phases of the project. The U.S. Advisory Team was always ready to listen, argue and discuss with us. Many of the suggestions outlined here are really theirs, and we thank Roger Newburn, Ryland Holmes, Rudy Pederson and Santigo Ducaney for all their help. Special thanks are due to Mr. and Mrs. Barnes of the Christiana Project Staff; and Pamela Stewart, Agricultural Extension Officer, Rose Howard, Agricultural Extension Assistant, and all the others on the Project Staff who assisted us.

Finally, we acknowledge in a special way Dr. Donor M. Lion, USAID Mission Director, for his concern that his people address the needs and contributions of women not only in this project, but also in all aspects of the Mission's program.

Elsa Chaney
Beverley Samuels

BACKGROUND

The USAID/Integrated Rural Development project, now in its first months of activity in the two watershed areas of Two Meetings and Pindars, has as one of its principal goals the increase of agricultural production in order to improve the standard of living of small hillside farmers in rural Jamaica. (Project Paper: 5)* The immediate group to be served includes the 4,000 farmers of the areas, mainly those with land holdings of 5 acres or less, but also including some whose low income puts them in the target group (even though their holdings may go up as high as 10 acres). Per capita income of the potential project participants is estimated at less than $200 (in terms of 1976 prices) (Project Paper: 12). Also included are some 1,000 landless rural dwellers; when the families of each group are counted, the total number of beneficiaries totals some 25,000.

AID's Integrated Rural Development project is part of a larger effort on the part of the Jamaican government to improve the standard of living of the country's poorest 150,000 farmers by increasing their incomes and providing improved roads, housing, electricity and water. The Government of Jamaica also intends the USAID project to serve as an agricultural production model which can be replicated on small hillside farms in the other 31 watersheds of the mountainous inland regions (Project Paper: 5-13).

Some 80 percent of small farmers in Jamaica cultivate lands on steep hillsides, and thus soil conservation is the necessary focus around which other components of the project must revolve, the "glue" which holds the project together (in the words of Dr. Peterson). Without a careful restoration and conservation of the soil for the next generations, Jamaica will be increasingly unable to feed its people and agriculture may well be permanently impaired, if not altogether doomed.

Small farmers in Jamaica produce most of the domestic food crops and about 25 percent of agricultural exports. They represent about one-half of all farmers, although they occupy only 13 percent of the acreage devoted to agriculture. About 60 percent of the Jamaican population lives in rural areas, and 30 percent of the total workforce is in agriculture. One-quarter of the farmers are women (USDA, 1978).

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*Other specific goals include control of soil erosion in the watersheds and strengthening of the capability of the human resources in the Ministry of Agriculture.

One outstanding feature of the IRD project is the recognition on the part of the Jamaican Government and the project designers and directors of the important role women play in the rural economy of the country. Throughout the island, women not only perform traditional household tasks, but they also actively participate in agriculture. A sample survey carried out in the project area estimates that 22 percent of the holdings are managed principally by women (Project Paper: 56)*. Even when they are not the principal farm operators, however, spouses of male farmers participate regularly in farm production activities. In the survey, 47 percent of the male farmers interviewed said that their spouses assisted in most farming operations, while another 21 percent reported collaboration at least in planting and harvesting (Ministry of Agriculture, 1977: Table 156). Many others assist in marketing (83 percent of the "higglers" or market traders of Jamaica are women (Smikle and Taylor, 1977:32)),** farm management and decisionmaking. In this connection, it is interesting to note the high degree of agreement between men and women on whether spouses are consulted when major changes (for example, in cropping patterns or farm practices)*** are made on the farm. In the farmer survey mentioned above (Ministry of Agriculture, 1977: Table 171), 64.9 percent of the male respondents said they usually consulted their wives on such changes. In a 10 percent sample of female spouses of participants in the farmer survey (male spouses of women farmers were not included), 65 percent of the women also reported that their spouses consulted them on major farm decisions. (Project Paper: Appendix R-3).

In spite of the fact that Jamaican women already are heavily involved in most key farm operations, as the Project Paper notes,

> little has been done to draw them more directly into the change process. Of those extension activities which do exist, the wide majority are directed toward the men. Only occasionally is assistance designed for women and that which is constructed (sic) usually deals with home economics topics (Project Paper: 57).

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*The Advisory Team believes this figure may be high, and suggests 15 percent as more realistic. The 22 percent estimate would, however, be more in line with the overall Jamaica average as reported in the USDA study cited.

**The "higgler" or market trader system includes some 13,000 higglers, about half of whom purchase directly from the farmer (sometimes harvesting his crop), and sell either wholesale to other higglers or retail directly to consumers in some 100 parochial markets. The 17 percent males are not typical higglers, but largely farmer-vendors (Smikle and Taylor, 1977:32).

***The question asked was "When changes are to be made on the farm (changing cropping patterns, farm practices, etc.), do you usually consult with your spouse?"

The Government of Jamaica has recognized the importance of women's role, principally through the creation of a Women's Bureau (June 1975), attached to the Prime Minister's Office (under the direction of Mrs. Peggy Antrobus who has, however, now gone back to her home in Barbados where she has initiated the Women and Development Unit (WAND) under the auspices of the Extra-Mural Department, University of the West Indies, Cave Hill.)* The present Women's Bureau Director is Mrs. Hazel Thomas. Additionally, the Government early in 1977 created the post of Minister of State for Women's Affairs and appointed Mrs. Carmen McGregor, a Senator elected in her own right, as the first incumbent. The Women's Bureau is concentrating its present small resources on rural women, and has initiated several small agro-industries in various parts of the island. Additionally, those actively working with rural women include the health network in each area, lead by the District Nurse (including midwives, health aides, nutrition assistants and family planning aides**); the education network (including teachers of home economics and agriculture), and the Ministry of Agriculture's own network of Home Extension Officers (three work in the IRD Project areas).

So far as the AID/IRD project is concerned the Project Paper (pp. 56-57) discusses the determination made at the outset to launch a concerted effort to involve women directly in the change process. What progress is being made to carry out this goal? Perhaps most notable is the fact that no distinction currently is being made between women and men farmer operators in the initial project activities, chiefly the drawing up of Farm Plans for soil conservation and improved cropping practices. In addition, the Project Paper (p. 57) calls for the recruitment of two women agricultural extension agents in each watershed area, as well as the training of at least two women at the M.S. level in rural sociology and extension planning. Already several female agricultural extension agents and extension assistants are at work in the project, as well as female soils and water management experts. It is not known to what extent they are aware of or committed to solving the special problems of women. One extension assistant says she always makes a point of talking to the spouses of male farmers.

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*Dr. Jocelyn Messiah: Institute of Social and Economic Research, at the same campus of the UWI has proposed to AID through its Caribbean Regional Development Office a two-year research proposal on "Women in the Caribbean" which would deal with women and the family, education, law, politics, perceptions and stereotypes of women, and include an annotated bibliography. A second phase would develop an innovative analytical approach to studying (through oral history interviews) individual lives of representative groups of women.

**These are all recognized para-professional fields.

Generally, however, it is the impression that women who are not farm managers are rarely included in discussions of the Farm Plan or otherwise included. Nevertheless, the Project Paper specifically calls for the inclusion of farm household women in the receipt of credit, production and marketing technical assistance benefits of the project (p. 57). While women's situation needs and contributions may be more salient to women staffmembers, the ideal, of course, must be for all personnel, male and female, to be cognizant of and sensitive to those women not involved as principal decisionmakers on the farms. It was this concern that all women in the watershed areas benefit from the AID/IRD project and that all personnel begin to collaborate in this goal that lead to the present consultancy.

INTEGRATED RURAL DEVELOPMENT PROJECT/CURRENT ACTIVITIES

In the Two Meetings/Pindars watersheds, agriculture is carried out principally on hillsides of varying degrees of slope; consequently, there are serious problems as rushing waters carry away the precious topsoil during the two rainy seasons (March/April and October/November). Thus, the IRD project necessarily has begun with an emphasis on the critical problem of soil conservation. It is important to emphasize, however, that the project is not solely concerned with the application of soil conservation treatments, i.e., terracing, ditching, elimination of gullies. As basic as these activities may be, conceivably there could be other means to reach the principal overall project goal which is increased productivity leading to improved incomes, i.e., better cropping practices, improved fertilizer utilization, better varieties, contour farming.

The basic working document for the Project is the Farm Plan (Annex 1), which assesses all aspects of the participating farm, including the tenancy status, crops and animals produced and marketed, soil conservation methods already practiced -- and lays out (with mapping) the sections to be treated and the subsequent crop and animal development. Participating farmers may do part of the work themselves (and get paid for it). People whose Farm Plan does not include soil conservation treatments still can participate in other aspects of the project. Farmers who are women are covered (and, in fact, are participating, as a quick glance through some of the Farm Plans signed to date demonstrates).

However, women whose spouses are not participating still are entitled to project assistance; for example, agricultural extension

services in raising chickens and rabbits, or vegetables for the family table; credit, and home extension services. The latter serices will also be available to all women:

- female farm operators in carrying out their homemaking and child care responsibilities
- farmers' spouses who may help on the farm (as most do),* but who define their principal responsibility as the home.

As the first step in carrying out the goals related to the integration of women in roles outside their cash-cropping activities, Ms. Beverley Samuels, a recent graduate of the Jamaica School of Agriculture, was recruited to serve on the Extension Staff as Home Economics Officer. She began work in October 1978, and her first assignment was to become familiar with the needs of women in the area. She has been carrying out this task principally through the Christiana Home Economics Center, attached to the Ministry of Agriculture. Mrs. Minna Henry has been invaluable in assisting Ms. Samuels to become acquainted with the region.

The second step was the invitation to Dr. Elsa Chaney, Office of Women in Development, USAID/Washington, to work hand in hand with Ms. Samuels to define possible areas in which the project could more fully integrate women in their roles outside the production of cash crops. She spent two weeks in Jamaica (March 2-18), 1979), principally in the Two Meetings/Pindars watersheds, and the following design for an "Inquiry" is the result of her and Ms. Samuels' collaboration. The work was carried out in close consultation with the Advisory Team; many helpful comments and suggestions were given by Roger Newburn, Ryland Holmes, Rudy Pederson and Santiago Ducaney.

We call our report an "Inquiry" because it is designed to suggest possible avenues of activity for the Home Economics Officer, in collaboration with the Agricultural Extension Staff and others. By no means do we wish to suggest that Ms. Samuels intends to carry out a long-term survey. Rather, in the next six-eight weeks she will embark on a series of explorations and experiments, conversations, meetings, consultations and discussions (to be detailed below) in order to begin charting the best course for carrying out her responsibilities.

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*In this connection, it is interesting that a large number of even those spouses of male farmers who are characterized by their husbands as "not willing to work" on the farm, actually do so (498 of 647). Additionally, 1288 spouses in the survey were characterized as "housewives willing to work" on the farm. (Ministry of Agriculture, 1977: Table 156) (N=3098).

HOME ECONOMICS PROGRAM GOALS

Because the main thrust of the IRD Project has been defined as the improvement of the standard of living of small farmers in rural Jamaica, and because this goal is to be achieved through the increase of agricultural production, we feel it is important that the home economics program and other women's components be tied as closely as possible to the main project.

In order to accomplish this end, we propose a revision of the basic project working document, the FARM PLAN, specifically to include a FAMILY FOOD CROP PLAN (FFCP). The FFCP is a planned cycle for growing not only nutritious vegetables for the family table, but also animal protein in the form of eggs, poultry, rabbits and goats.

The goal of making Jamaica's rural economy more productive in terms of cash crops for the urban population and for export is an understandable one, particularly in the light of the large amounts of foreign exchange expended not only for food commodities not easily produced on the island, but also to fill food deficits in products which could be produced in Jamaica such as mackerel (or substitute, now imported from Brazil), goat meat (imported from Australia), rice and many other items. The IRD Farm Plan understandably reflects this concern.

However, we note several serious deficiencies in the Farm Plan from the point of view of family nutrition for the project participants themselves:

1. There is no recognition of the importance of food produced and consumed on site. The Farm Plan only addresses the production and marketing of crops and animals to be sold. From the point of view of basic economics, this is a curious omission, also reflected in the fact that the annual income calculation does not count the food which the family grows and consumes as income, only what it sells.

2. There is no provision in the Farm Plan for food the family will consume. Most families eat part of their starchy cash crops -- but the whole thrust of the Farm Plan document nevertheless gives the erroneous impression that only cash crops are important. From the point of view of family nutrition, such a lack could be disastrous.*

*As the Farm Sector assessment carried out by USDA points out, most farms produce foods low in protein: cassava, yams, sweet potatoes, bananas plantain and breadfruit. The results are that 20 percent of children under 4 years of age are significantly underweight for their age; mortality rates for 1-4 year olds are twice that of Barbados, Puerto Rico, Trinidad and---

3. The above two observations address the negative aspects of the Farm Plan's orientation to cash crops. Without a positive effort to address the nutrition needs of the farm operator and his or her family, however, in the Farm Plan, such needs will not be considered "important." And without this inclusion, emphasis on the growing of nutritious food for the family table, families will either:

   --continue to eat a starchy diet of food from the cash crops which are low in protein

   --use the increased income from the cash crops produced through the project to buy processed (and non-nutritious foods) in the supermarket

Ultimately, it makes more sense to consider the following:

1. Revise the Farm Plan, in consultation with the Home Economics Officer, to include a specific cycle of vegetable and animal protein to be produced on site for the family to eat.

2. Include in the programming for this cycle at the appropriate places in the Farm Plan, i.e., Crops Marketed and Consumed; Livestock Production; Land Rotation Schedule; Map (with a plot or plan for intercropping of vegetables for family consumption to be shown); Proposed Crop Development; Proposed Animal Development.

3. Set aside at the Demonstration Sites in Kellits a section to be called the Family Food Crop Plan (suggested by Roger Newburn), on which a selection of nutritious vegetables would be grown. We do not, incidentally, necessarily suggest a plot, since (a) such an idea might be resisted as competitive with land for cash-cropping, and (b) there already is the custom of inter-cropping vegetables.

4. Work closely with the Home Economics Officer(s) to decide what animal and vegetable production should be undertaken in relation to needs of specific family types, i.e., number of small children, number of those doing hard physical labour, special needs of pregnant and lactating mothers, and the like.

5. Initiate interviewing, with the guidance of the Home Economics Officer, of the women on the farms, ascertaining what they feel are their needs and deciding what kinds of assistance the women themselves desire and will accept. This consultation would form part of the regular Farm Plan assessment, and the women who are not the principal farmers would be drawn into conversation and consulted on at least one of the team visits.

Tobago; 45 percent of pregnant women are anemic; weights and heights of school children from low-income families are significantly lower than average; agricultural workers during periods of heavy labor lose weight.

The degree of consultation between men and their spouses is already very high in Jamaica, as the project survey demonstrates. Therefore, it appears to go very much against Jamaican cultural norms to ignore the woman (unless she happens to be the principal farmer), as apparently now is being done in interviewing for the Farm Plan.* From the spouse's perspective, it will be very upsetting if the face of the farm is completely altered by men and machines moving earth; she may very well oppose or react negatively to what she does not understand. It is unfair to the women not to consult them when the whole face of their world -- the farm -- is to be considerably altered and changed.

The Home Economics Officer will be available to work several days with each team to initiate interviewing of the women during the Farm Plan assessment.

A concerted effort on the part of the Home Economics Officer(s) to address the nutrition issue, as outlined above, would include advice on what to grow as well as information on the best ways of preparing foods in nutritious combinations. The nutrition program is spelled out in more detail in the following sections: Means to Carry out the Home Economics Program Goals, and An Inquiry on the Home Economics Program.

Other possible goals, either now or for the future (to be decided in collaboration with the Project Directors) might include:

--some basic instruction in clothing (we noted that almost all the children on Silent Hill and in Wild Cane had colds, which the mothers said were chronic); we are not sure the children have sweaters or jackets.

--some craft work, showing the women how to use simple materials and techniques (for example, tie-dyeing) so they can make dresses and articles for the home inexpensively. Possibly some home industries based on women's handwork might be developed.

--processing and preservation of foods as a further step in the nutrition program -- to take advantage of the abundance at some seasons and make food available at times of scarcity.

--home improvement, for example, building ovens out of kerosene pans, renovation or installation of latrines.

--planning programs (this and several of the above suggestions would require short term technical assistance) for the farm radio schedule to be initiated as the new radio station in Christiana is inaugurated.

*The Project Director indicated that such omission of the spouse from the interview is not the policy of the project and will be rectified.

POSSIBLE COLLABORATION/OFFICE OF WOMEN IN DEVELOPMENT

From the perspective of the Office of Women in Development, the Jamaica IRD Project is a key one in which to participate and to work out a possible model for implementing women's components in a major rural development effort. The Jamaica project offers several distinct advantages and opportunities as an area of field experiment in Technical Assistance for the WID Office:

1. The project is a high-profile one, intended in itself to be a model for rural development, not only in the two watershed areas where the present project is being carried out, but also for some 30 additional mountainous regions of rural Jamaica where poor farmers are working in roughly similar conditions: on small hillside plots with severe problems of soil erosion.

   Misuse of resources for the past 30-40 years, particularly in relation to the soil, means that if this project does not succeed, Jamaica's rural agriculture and rural people may be doomed. Discussion of the project occupied 45 minutes of the meeting between Presidents Carter and Manley; last fall, a Congressional Delegation, including Representative Richard M. Nolan of Minnesota, a member of the House Agriculture Committee, visited the project.

2. In Jamaica, another advantage is the combination of a sympathetic USAID Mission Director, Dr. Donor M. Lion, and a committed Rural Development Officer, Dr. H. Patrick Peterson (just beginning his tour of duty there), who is interested to see women's needs and contributions addressed.

   Dr. Peterson understands women in development in its broadest definition, as going beyond the "home economics" rubric where we began our assignment (this is not at all to downgrade the important home economics/garden plot/ extension/nutrition aspects of the work we are initiating, which will remain central).

3. A particularly concerned and sensitive project director, Mr. Henry Stennett, Soils Conservation Director, Ministry of Agriculture, who was very supportive of our efforts and came the last day Chaney was there -- a Saturday -- to hear about our suggestions and conclusions.

4. Links we already have developed with women such as Hazel Thomas, Cynthia Ellis and others at the Jamaica Women's Bureau; Novlette Jones, Director of Home Extension for the Ministry of Agriculture in Kingston; Jocelyn Messiah and Dawn Marshall, Institute of Social Research, and Peggy Antrobus, Women and Development Unit, University of the West Indies, Cave Hill, Barbados.

5. Over the next five years, $60 million is to be spent in the agricultural sector in Jamaica. Almost anything can be worked into the rubric that we wish to suggest (see CDSS for Jamaica). We should study the CDSS carefully and flag opportunities for weaving women in development into the total, island-wide program.

For the time being, I want to suggest that we propose to the USAID Mission and began identifying short term technical assistants for the following:

-- Gardening and vegetable crop specialist: The present home economics officer does not have any background in growing vegetables. However, the Project Horticulturalist is most sympathetic, and the Team Leader himself made the suggestion that a garden plot be part of the Demonstration Site at Kellits (where stands of yam, banana, cassava, red pea and other cash crops already are well underway).

-- Marketing expert: USAID is presently beginning the design of a major overhaul in the system of marketing food. There is concern that the "higglers" of Jamaica -- the women who act as the link between farmers and consumers -- not be prejudiced by this project. The idea now is to integrate the full-time higgler into the system, and to find part-time employment alternatives for the weekend higgler (I suggested this as a project for the Jamaica Women's Bureau to tackle, but a marketing expert also will be needed -- and this is Dr. Peterson's first priority and request to the WID Office).

-- Person to set up the mechanism for supervising and coordinating the tasks of the home economics team. If we amplify the team to include three more Home Economics Officers and eight Home Economics Field Assistants, a system has to be designed for their effective functioning within the project and in the watersheds. I plan to consult with Mary Rainey and Helen Strow, American Home Economics Association on this.

-- Expert in preservation and processing of food (which might lead to an agro-industry, something the Jamaican Project Director, Mr. Stennett, is most interested in). Here, we shall want Ms. Samuels to participate in the WAND/World Education subregional seminar on agro-craft industries scheduled for Jamaica in May or June.

-- Trainers in extension and nutrition for the Field Assistants Course in Summer 1979.

-- Media Information Specialist. I have suggested that Maria Terese Aguirre, Director of the USAID/Inter-American Institute of Agricultural Sciences "Educational Media for Women" Project, headquartered at IICA in San Jose, Costa Rica, be invited to Christiana for the Seminar to be held on extension programming for the new radio station. Ms. Samuels also should be included in the Seminar. Ms. Aguirre will be able to assess the situation in terms of what information the women need in agriculture/nutrition to carry out the Farm Food Crop Plan successfully, and can suggest a technician to work with the project as a short term consultant to design not only radio, but broader media initiatives to reach rural women with the information they need.

MEANS TO CARRY OUT GOALS/HOME ECONOMICS PROGRAM

(This section should be read in conjunction with the Inquiry Section following.)

I. ADDITIONAL STAFF

A. Three additional, fully-qualified Home Economics Extension Officers

(Jamaica School of Agriculture has four specialties: nutrition, extension clothing, and arts and crafts.)

Ideally, each watershed area should have at least two Home Extension Officers in order to cover the vast number of opportunities for women which the project presents. Because our preliminary review suggests that nutrition and extension are the key areas for work at least for the present (and this accords with the emphases suggested by the Project Director and the Senior Advisor for Extension Activities), our recommendation would be to recruit an additional officer for Two Meetings with a specialty in extension, and two additional officers for Pindars with nutrition and extension specialties.

If the project can at present only contemplate one additional staff person for home economics, Ms. Samuels suggests a counterpart in nutrition since that is the emphasis (see below) which appears to be the most logical starting place for work with women in their non-cash crop responsibilities. This would strengthen the thurst of the Home Economics program by having both officers working from a similar background of training.

Alternatively, an argument could be made for recruiting a young lady with the extension specialty in order to complement Ms. Samuels' expertise, i.e., Ms. Samuels could impart her greater knowledge of nutrition to a counterpart, while the counterpart could do the same for her in extension.

B. A small group of Field Assistants in Home Economics

Preliminary soundings in the Home Economics Departments in several of the Junior Secondary Schools indicates that the Teachers themselves occasionally use especially capable past students as assistants. Discussion with a few Teachers indicates their willingness to collaborate in identifying possible recruits to serve as Field Assistants in Home Economics for the IRD Project.

The IRD Project already employs Field Assistants in Agriculture. Young ladies of the area also are at work with mimimum training (for example,

two months for those in health) as Health and Nutrition Assistants. There would thus be a precedent for the creation and training of a group of Field Assistants in Home Economics.

(SEE INQUIRY, II-B)

II. NETWORKS

Whether or not Ms. Samuels decides with the Project Directors to go forward with the creation of Home Economics Assistants, she and her prospective co-workers -- because of the very nature of an "integrated rural development project" -- cannot work in isolation. There are several possibilities for networking the efforts of the Home Economics Officers with ongoing services, initiatives and organizations both within and outside the project:

A. Agricultural Extension network of the IRD project

B. Health Network in the two watersheds

C. Home Economics Officers of the Ministry of Agriculture

D. Education Network, especially the Home Economics and Agriculture Teachers

E. Sub-watershed Development Committee Networks

(SEE INQUIRY, II-A through E for a discussion of the advantages and disadvantages of each network)

III. THE FAMILY FOOD CROP PLAN

Some work already has been done (by the Project Horticulturist and others on the growing cycle and the food value of potential crops (and animals) conplated for the Family Food Crop Plan (FFCP). However, the Home Economics Officer plans to carry on research in greater detail so that she can serve as a resource person for implementing the Food Plan for the family table into the Farm Plan assessment document, along with experimental work on the most nutritious combination of foods and dishes created from locally-grown food crops and animals.

(SEE INQUIRY, III for details)

IV. EXPERIMENTS IN GROWING FOOD, PROPAGATING ANIMALS AND PREPARING NUTRITIOUS MEALS FROM LOCALLY-GROWN FOOD CROPS

In the next six weeks-two months, the Home Economics Officer intends to perform a few experiments in order to gain experience in work with the people, especially the women, and to see what kinds of techniques might be developed for group activities in growing vegetables, propagating animals and preparing nutritious meals.

(SEE INQUIRY IV for details)

V. WORK WITH WOMEN'S ORGANIZATIONS

There is not sufficient time during the two weeks of the consultancy to go very deeply into the question of what organizations -- formal and informal -- may exist in the rural areas, and specifically in the two watersheds.

Dr. Chaney intends to pursue this topic with the Women's Bureau in Kingston which she will visit after leaving Christiana. In the meantime, Ms. Samuels and Dr. Chaney met Professor Harvey Blustein at Kellits and he volunteered to look into women's participation in general organizations (particularly in the Jamaica Agricultural Society), as well as any organizations specifically designed for women. Mr. Arthur Goldsmith, also working with the Cornell University Participation project, also has said he will collaborate.

We intend to go more deeply into this topic during the next phase of the implementation of the women's component. In the meantime, Ms. Samuels' experiments in group activity (see INQUIRY I.V for one such activity, "Rabbit Partners," which we hope to try, building on the Jamaican custom of pooling resources -- in this case cash -- in order that each person in a "Partners" group in turn is given a pool of cash to which others have contributed that month until all have had a turn.

INQUIRY/HOME ECONOMICS PROGRAM

(This section spells out some of the lines of inquiry which the Home Economics Officer will pursue in the next six weeks-two months, in collaboration with the Project Director and Advisory Staff, in order to arrive at a better basis for making decisions on the Home Economics Extension Program)

I. ADDITIONAL STAFF

A. Additional Home Economics Officers--this matter is not within the purview of the Home Economic Officer, but we earnestly hope that it will be given priority consideration.

B. In order to ascertain whether the idea of Field Assistants in Home Economics is feasible, Ms. Samuels will:

1. Visit the Senior Education Officer for Secondary (hopefully, Mr. Ryland Holmes might accompany her), Mr. I.G. Cambell in Mandeville (coincidentally, we met him at Alston Secondary when we visited there, and he evinced interest in the project and said he would like to collaborate).

2. Visit the Principals and Home Economics Teachers/Agriculture Teachers in the Junior Seoondary Schools to work out details of selection and recruitment.

3. Interview prospective recruits from the July 1979 graduating classes.

4. Begin planning curriculum and resources for a short orientation course; decide on the basis of the preparation of prospective recruits the content, length, materials needed, etc. (It is anticipated that the course might last two-four weeks, and could be conducted at the nearby Home Economics Center in Christiana during the summer.) Ms. Samuels believes that each Home Economiss Officer could successfully work with and supervise two assistants. Thus, if the project is to have three additional Officers, eight young ladies would be recruited; if only one additional at present, four.

II. NETWORKS

A. The IRD Project Network: Advantages: Ms. Samuels and colleagues need some manner of working in a less isolated fashion from the project. It has been suggested by Mr. Holmes that a logical step would be for the Home Economics Officer(s) to work with the Agricultural Extension Staff. Ms. Samuels is sympathetic to this suggestion, because most of the Ag Extension staff were her classmates at the JSA, and she feels comfortable with them (and vice versa). Disadvantages: Working full-time with the Agricultural Extension teams would mean full days in the

field, leaving Ms. Samuels and counterparts little time for other endeavors. Conversely, if they decide to work half-time with the teams, then perhaps they would lose a certain momentum and continuity in the work. Moreover, the project badly needs more linkages with the already existing institutions in the watersheds, and Ms. Samuels has been making valuable contacts with both the health and education networks.

B. Health Networks: Advantages: As our visits with the District Nurse, District Midwife and Health Aide Ms. Williams demonstrated, the Home Economics Officer(s) of the IRD Project would benefit from the fact that the Health Network already is deeply embedded in the communities (at least insofar as Nurse McPherson's area is concerned), while the Ag Extension teams necessarily must concentrate on many other aspects of the farm outside the farm family and its health/nutrition. We were impressed in the case of Nurse McPherson with the regular and wide coverage of territory by the Health team (whether this is true of the other section of the Two Meetings watershed and in Pindars would be a matter for this Inquiry, should a decision be made that work with the Health Networks is indicated).

Ms. Samuels does feel that working with the health network would give her entree with the women with whom the health people already are in touch through their home visiting program, clinics, etc. Another advantage is that the health teams stress nutrition as an integral part of their work and thus have laid a basis for further emphasis on this topic. Additionally, work in collaboration with Nurse McPherson would give a certain "legitimacy" to the Project Home Economics Officers and their activities.

Disadvantages: Working with the Health Team might simply isolate the Home Economics Officers from the project, unless the collaboration were carried out on a parttime basis. It is evident that even two Home Ec Officers cannot divide their time in too many directions, or their effectiveness will be impaired.

C. Home Ec. Officers, Ministry of Agriculture: Advantages: Mrs. Novlette Jones of the Ministry of Agriculture in Kingston is keen on some sort of linkage being established in the field among the various groups serving women, i.e., Home Extension Officers, Health people, Nutrition Assistants, etc. However, because the Officers from the Christiana area were not here last week (because of some sort of training course), we did not have a chance to speak to them -- and we did not track down Mrs. Wilhel Laurance, the Officer in the Morgans Pass/Kellits area. If this line of collaboration is considered worthwhile, Ms. Samuels could pursue the possibilities -- and in any event, should pay courtesy calls on them. Disadvantages: It would appear that the Ministry's Home Extension Officers already are so overburdened that areas of actual collaboration, outside of occasional consultation, might be difficult towork out. In addition to Ms. Samuel's courtesy calls during

the next weeks, Dr. Chaney will also be seeing Mrs. Jones in Kingston once again on March 16 (tentative), and will explore more concretely with her what might be done.

D. Education Network: Advantages: A possible area of collaboration to be explored is the creation of the Home Economics Assistants corps. Other areas night be explored such as participation in PTAs, "Open Days" for parents at the schools, 4-H clubs and the like. Another interesting area of collaboration might be in the School Gardens, particularly where girls are involved in the agriculture courses (40 percent of agriculture students at Kellits are women). Disadvantages: We feel that the Home Economics Officers of the IRD Project should not become too involved in the regular school home economics/agriculture courses because many demands would begin to be made on their time; work in the schools at this point might be somewhat peri=pheral to the project.

E. Development Committee Networks: One way that we might involve the health, education and home extension officers of the Ministry of Agriculture would be through recruiting them to the Development Committees in the sub-watersheds.

As these are not yet functioning, we do not know what to suggest their relation to the Home Economics program might be -- but Ms. Samuels would appreciate being kept informed of progress as these committees are formed.

III. FAMILY FOOD CROP PLAN

A. In order to do a complete research job on computing the food value of each food crop grown in the watershed areas, the Home Economics Officer plans to visit the Caribbean Food and Nutrition Institute at the University, Mona, and other institutions as needed.

B. Ms. Samuels also will begin to design workshops and demonstrations to impart information on food crops and nutrition education to the Agricultural Extension people.

IV. EXPERIMENTS IN FOOD/ANIMALS/NUTRITIOUS MEALS

A. The Home Economics Officer, in order to gain experience in food crops, would very much like to monitor the growing of the intensive vegetable garde in the Demonstration Plot. A possibility suggested by Roger Newburn might be considered, with the collaboration of Ms. Samuels: a section of the Demonstration Plot which would be labelled "Family Food Crop Plan," in which various nutritious vegetables would be grown.

B. An experiment with a few vegetables on the plot of one of the women would be the ideal. This would complement the Demonstration Plot,

demonstrating vegetable growing on a smaller, more realistic scale.

C. Possible experiment with a group of about six-eight women to propagate rabbits (with the assistance of Andra Carrothers) building on the "Partners" idea to help the women earn some cash. In return for initial stock, each woman would give back to the project a buck and two does.

D. The Home Economics Officer will do experiments with local foods in order to get the ladies accustomed to them. These experiments will be carried out on a group basis, i.e., the Home Economics Officer will form groups in several areas. The Officer will do her demonstrations mostly with the local foods that the ladies grow in the areas. From her observation, the people grow some nutritious foods but most of them are sold instead of consumed by the family. Reasons for this are:

1. The people don't know the food value of these foods.

2. They don't know how to prepare the food in tasty, appetizing ways, or in ways that release the protein, e.g., to let them cook legumes and cereals together because that is the only way they will really benefit from the protein content.

3. Having them eat fruits and vegetables is another problem, e.g., some people say they are bored with just boiling and eating vegetables. The cho-cho is an example -- not very nutritious, but with the addition of milk and other nutritious substances it makes a delicious pudding or even porridge.

4. There is also always the problem of people getting animal protein to eat. Most of the children are malnourished. Demonstrations on how to use some of their beans and peas as protein substitutes would be the ideal.

All these demonstrations will be possible if the Home Economics Officer has her equipment to be provided by the project, i.e., stove, oven, pots and pans, etc.

V. WOMEN'S ORGANIZATIONS

At this point, until the organizations map of the area is completed by the Cornell Team, nothing formal is planned. However, Ms. Samuels will keep in touch with the Cornell people in the next weeks, and will report to them any women's activity of which she becomes aware. It is also suggested that on her trip to Kingston she also visit the Women's Bureau; also that provision be made for Ms. Samuels to attend the next seminar (in an on-going series planned by the Caribbean Women's Association in collaboration with World Education, Inc.) on income-earning activities for women. Dr. Chaney will provide more information on this in the next several weeks. (The next seminar will be held in Jamaica in May). We will be suggesting that several local women from the watersheds be included in this and other seminars, if such inclusion is not already planned.

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Appendix 3

Project Profiles dealing with the use of radio in Agriculture, Nutrition, Health, Integrated Rural Development, Education and Human Resources.

BASIC VILLAGE EDUCATION
Guatemala

TARGET AUDIENCE:	Indian and Ladino farmers in Guatemala
OBJECTIVE:	To change farming practices and increase production through the effective use of communication
MEDIA:	Interpersonal communication, radio forums, graphic materials
DONORS/SPONSORS:	The Latin American Bureau of the U.S. Agency for International Development, and the Guatemalan Ministries of Education and Agriculture
DURATION:	Implemented in 1973; ongoing
CONTACT:	Prof. Mario R. Dardon, Project Director, Programa de Educación Basica Rural, 2a. Avenida 8 - 53, Zona 1, Guatemala City, Guatemala; Dr. Howard Lusk, Chief of Education, Science, and Technology, Latin America Bureau, U.S. AID, Rm. 2245 New State, Washington, D.C. 20523, U.S.A.

DESCRIPTION:

Basic Village Education (BVE) is a five-year experiment aimed at using communications media to acquaint Guatemalan farmers with modern agricultural practices. Its ancillary goal is to increase the effectiveness of extension workers so they can help solve individual and regional farming problems. The plan to test the cost-effectiveness of various mixes of communications media was implemented by the Academy for Educational Development under contract to the Agency for International Development (whose total contribution to the project will cumulatively total at least $1,650,000 by the time the project is completed). The plan originally called for three and, later, for four distinct communications mixes, representing increasing degrees of contact with the rural families "in two vastly different cultural and geographical settings."

In 1973, the project was initiated among the Spanish-speaking Ladinos (Mestizos) in the southeastern part of Guatemala. Roughly 18 months later, the experiment was extended to include the western highlands, where it was directed toward the Quiché-speaking Indian population. In a survey conducted by the BVE staff in 1974, the illiteracy rate was pegged at 64 percent in the Yupiltepeque Valley of southeastern Guatemala and at 66 percent in rural communities near Momostenango in the highlands.

Radio was chosen as the main conduit for imparting new agricultural knowledge and stimulating behavioral change. Two radio stations broadcast eight hours a day, from 5 to 9 a.m. and from 4 to 8 p.m., Monday through Saturday. To attract and maintain a large listening audience, the BVE staff programs about 80 percent of the

broadcast time with music, entertainment, and other programs unrelated to agriculture. The remaining hours are devoted to the discussion of farming. The core agricultural program includes a 30-minute "agricultural magazine," radio novels, a question-and-answer interview with an agronomist, and 30 to 40 spots that carry agricultural messages.

The first of the four different communication treatments consists of messages delivered by radio alone. The second adds a village "monitor" — locally selected and trained for about a month — who weekly visits four or five villages that together contain approximately 200 families and who holds late afternoon forums at which recorded radio messages are played on a cassette recorder. The monitor uses flipcharts and posters to spark discussions, gives out take-home sheets, and in some cases, cultivates demonstration plots. A third treatment provides low-level technical assistance from agronomists, each of whom serves roughly 600 families. The BVE field agronomist works with monitors in the villages, conducts plot demonstrations, helps identify local crop-production problems, and advises farmers. He also serves as the monitors' supervisor and trainer and is an important feedback channel from the field. The fourth, added in 1975, employs monitors alone in areas not reached by the radio shows.

RESULTS:

Contrary to expectation, and probably because programming is so carefully tailored to local needs, *radio alone* seems to be having a significant impact on farmers' behavior. This particular experimental design, some say, has created an extended personal communications system rather than a traditional impersonal broadcasting sphere. Also, the monitors and agronomists appear to reinforce the radio messages effectively.

The radio forums tended to attract farmers already disposed to adopting more modern farming practices. But some farmers who did not attend the forums also changed their farming practices. Chief among the changes were the selection of heartier corn seed and the use of fertilizer at flowering and seeding time. Fungicide use also increased among many area farmers, but this change was less marked.

OF NOTE:

- In 1976, the usual effect of low rainfall on crop yields was exacerbated by a drought that occurred in the critical months of July through September.

- The experiment was disrupted by the earthquake in February of 1976. For a month project resources were used almost exclusively in relief activities.

- The introduction of silk-screening in 1976 produced superior graphics, eliminated tedious hand copying, and allowed artists more time to integrate feedback concepts into future illustrative materials.

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Clearinghouse on Development Communication
June 1977

MASAGANA 99
Philippines

TARGET AUDIENCE:	Rice producers in 59 Filipino provinces (approximately 500,000 farmers, according to official estimates)
OBJECTIVES:	To increase rice yields by supplying farmers with credit, loans, agricultural inputs, and timely information on agricultural concepts and practices
MEDIA:	Radio, comics, booklets, flyers, bulletins, vernacular magazines, newspapers, posters, TV, and interpersonal communication
DONORS/SPONSORS:	The National Food and Agriculture Council of the Philippines (an organization composed of 17 Filipino government agencies and banks); the U.S. Agency for International Development; and the International Rice Research Institute
DURATION:	Pilot project and research conducted from 1971 to 1973; implementation phase begun in 1973; ongoing
CONTACTS:	Dr. Arturo Tanco, Secretary of Agriculture, Quezon City, Philippines; Domingo F. Panganiban, Director, National Food and Agriculture Council, Quezon City, Philippines; J.D. Drilon, Jr., Director, Southeast Asian Regional Center for Graduate Study and Research in Agriculture, U.P. at Los Baños, College, Laguna, Philippines; Kenneth F. Smith, OHP USAID Korea, c/o U.S. Embassy, Seoul, APO S.F., CA 96301, USA

DESCRIPTION:

President Ferdinand Marcos launched *Masagana 99* in May of 1973 in a nationally televised ceremony. Calling the project "a program of survival" in the wake of regional flooding in 1972 and of a national drought in 1972/3, Marcos rallied the nation to cooperate in a rice-growing scheme billed as a remedy to a production slump that threatened to deplete the Philippines' foreign exchange and work other economic injuries. The note of urgency reflected the fact that the rice shortage that year had been estimated at 700,000 tons. In terms of the number of farmers involved, the degree of government and private-sector collaboration, geographic sweep, the use of the mass media, reliance upon trained extension agents, the spread of new rice-farming technologies, and gains in rice-yields, the project Marcos announced was the largest and most comprehensive in the nation's history.

Masagana 99 has 11 elements. They include (1) a research-based technology package, (2) a scheme for the production and distribution of seeds, (3) a fertilizer allocation and distribution system, (4) a campaign aimed at controlling pests and plant diseases, (5) a credit scheme, (6) a program for distributing irrigation pumps and otherwise improving irrigation systems, (7) a program for increasing the number and reach of mobile agricultural extension agents, (8) a mass media campaign created to spread information and to educate the public on agricultural concepts and practices, and (9) a system of price supports coupled with procurement and grain-storage programs. The remaining two elements, administrative and cross-sectoral, are a focus on carefully defined target areas and a management unit charged with planning, implementing, and monitoring the overall program.

Radio functions as the mainstay of the mass media component of *Masagana 99*. Its heavy use reflects research findings that radio reaches up to 85 percent of the population and that three out of every four Filipino farmers own a transistor radio. Over 224 radio stations broadcast advice, jingles, and skits on agriculture ten times per broadcast day, while 125 radio stations carry over 50 local agricultural programs. Principal back-up media include instructional comics, booklets and bulletins in the eight major dialects of the country, newspapers (which voluntarily devote ample news space to the project), and instructional promotional posters. TV's role has been limited, consisting primarily of coverage of the project's opening ceremony and of occasional field activities.

The agricultural broadcasters involved in this project serve as more than disc jockeys. They act as information officers in the Provincial Action Committees (the project's basic administrative units), answer queries from listeners, tape interviews with both information suppliers and information users, conduct research related to the broadcasts, and attend community activities related to food production. In addition, they keep daily broadcasting logs, meet weekly with the provincial broadcasting authorities to plan and review programming, and stay abreast of the informational and educational activities of all agricultural and rural development agencies.

In 1977, *Masagana 99's* emphases on realizing higher yields and including increasing numbers of farm families were intensified. Since then, the project has been known as *Masagana 99 + 10*.

RESULTS:

Despite transportation problems, inclement weather, distribution tie-ups, and pest infestations, rice yields in the *Masagana 99* area increased dramatically — 28 percent from 1973 to 1974, an additional 1 percent in 1975, and another 10 percent in 1976. In 1974/5, for example, yields averaged 3.3 tons per hectare in the project area and .77 tons in the areas not covered by the project. Predictably, initial production leaps of the magnitude realized in the project area boosted farmers' gross incomes radically. For example, at the end of the program's first year, one study shows, farmers in three participating provinces (in which individual landholdings averaged slightly over two hectares) enjoyed income gains of 118 percent. Since 1976, the total harvested crop has steadily gone up, and in late 1977 the Philippines exported 25,000 metric tons to Malaysia and Vietnam. Total rice exports, including 1977's and 1978's, are expected to total 149,000 metric tons. The repayment problem, which has plagued the program, has grown less severe, but the number of farmers participating has dropped to 249,000, and inflation and cost increases of agricultural inputs have wiped out some of the gains made by the majority of participants.

The impact of the media and messages used in *Masagana 99* has not been evaluated apart from overall impact of the project on production totals and income gains.

OF NOTE:

- The word *masagana* means bountiful harvest and the *99* of the project title refers to the target yield of 99 cavans (1 cavan equalled 44 kilos at the outset of the program but has since been adjusted to equal 50 kilos).
- The basic research related to this project was conducted by the International Rice Research Institute, the University of the Philippines at Los Baños, and the Philippines Bureau of Plant Industry. The pilot phase was implemented by the National Food and Agriculture Council of the Department of Agriculture and Natural Resources, whose efforts were supported by the Bureau of Agricultural Extension, IRRI, BPI, and the U.S. Agency for International Development.
- The Management Information System developed in conjunction with *Masagana 99* was designed to help project managers overcome numerous administrative problems that typically beset agricultural projects: weaknesses in links between information sources and decision-makers, difficulties associated with distinguishing causal factors of production from incidental factors, and problems bearing on the coherence and reliability of information culled from many sources. The MIS adopted includes baseline data, standard indicators on data, "on line" data from the field, regular sample surveys, set procedures for analyzing data, feedback and evaluation, carefully spelled out operating assumptions, and other analytical tools for decision-making.
- The field staff reports to a Provincial Program Officer, who summarizes its comments and relays them first by radio and then by mail to the Management Committee Staff.
- Purchases of consumer goods such as cook stoves, refrigerators, and motorcycles by farm families involved in *Masagana 99* have increased so dramatically in some areas that the new variety of rice is sometimes called *Honda Rice*.

REFERENCES:

"Masagana 99: An Integrated Production Drive in the Philippines," J.D. Drilon, Jr., paper presented at the Seminar on Accelerating Agricultural Development and Rural Prosperity, University of Reading, September 1976.

"An Agricultural Management Information System: Lessons from Masagana 99," Kenneth F. Smith, PASITAM Design Notes, No. 7, May 1976.

"A Communication Behavior Study of Small Rice Farmers: Diffusion and Feedback in the Masagna 99 Rice Production Program in the Philippines," Hernando V. Gonzalez II, unpublished M.A. thesis, University of Hawaii, December 1977.

"Masagana 99: A Renaissance in Agricultural Communication," Vicente C. de Jesus, paper presented to the 3rd Research-Media Workshop of the Philippine Council for Agricultural Research, Davao City, August 1975.

"Masagana 99 Program: Farmers', Technicians', and Credit Agencies' Viewpoints," Eusebio P. Mariano, paper presented to the First Agricultural Policy Conference for Policy and Development Studies, U.P. at Los Baños, April 1975.

Clearinghouse on Development Communication
October 1978

SCHOOL-ON-THE-AIR
India

TARGET AUDIENCE:	Indian farmers
OBJECTIVE:	To impart a systematic knowledge of agricultural science to farmer listeners via radio broadcasts
MEDIA:	Radio, supplemented by written correspondence
DONOR/SPONSOR:	All India Radio
DURATION:	Initiated in August 1975; ongoing
CONTACT:	Dr. Pradip K. Dey (Project Director), Farm Radio Officer, All India Radio, Calcutta, India

DESCRIPTION:

In 1975 All India Radio developed a strategy to deal with the complex problem of delivering, in a short period of time, modern farming information systematically through channels acceptable to the rural farming population of West Bengal. The radio station chose literate farmer listeners with access to radios as the target audience for a broadcast series on agricultural science information. Its staff assumed that if systematic knowledge of agriculture were imparted to the farmer listeners, they would become "contact farmers" and disseminate modern agricultural innovations to villagers hitherto incapable of interpreting, or without access to, complex information on modern agriculture.

The *School-on-the-Air* for farmers broadcast six courses between late 1975 and early 1976. Each course consisted of five half-hour lessons. The curriculum was planned with the help of the Agricultural Department of the State Government of West Bengal, which also selected the broadcast trainers or teachers.

Trainers prepared the lessons and read them over the radio every Sunday between 7:00 and 7:30 p.m. The delivery pace was slow so the farmer listeners could write down important points. Key points, as well as unit numbers and measures, were repeated several times throughout the broadcast. At the end of each program, questions were broadcast. Before the listeners mailed responses to these questions to the radio station, their requests for clarification on points broadcast during the program were answered. Trainers marked each paper, and at the end of the year the radio listener received a certificate of appreciation along with his grades.

RESULTS:

Although All India Radio feels that a large number of farmers may have benefitted from the broadcast programs, only 114 actively participated in the correspondence course during the first "school year." These trainee listeners were surveyed at the end of the training session to ascertain their interests and expectations, and their potential for becoming contact farmers. Most participants, the survey showed, were between the ages of 20 and 29, educated at the high school level, and of middle income status. About 53 percent were closely associated with cultivation, while 35 percent were students or teachers. Most reported listening to the lessons on their own radios, and most were prone to greater social participation after hearing the broadcasts.

Overall, participants generally took a total of three out of the six courses offered during the training session. Most listeners were interested primarily in courses on the cultivation of wheat and summer paddy, two widely cultivated and remunerative winter crops in West Bengal. They reported that their strongest motive for participating in the course was to learn more about scientific farming, but that the desire for realizing increased profits came second.

After the first-season responses were analyzed by members of the Department of Agriculture of West Bengal, the 1976-77 School-on-the-Air was altered to stress the most popular subjects, and broadcast times were changed. The 1976-77 courses subsequently drew a higher number of active participants (155-180, depending upon the course). According to the project director, the evaluation showed that the likeliest participants in future farmers' School-of-the-Air courses will be prospective farm leaders — potential contact farmers.

OF NOTE:

- To measure listeners' potential for becoming contact farmers, researchers compared the participants' socio-personal characteristics with those of potential farm leaders identified by past investigators.

- Studies do not confirm that feedback from listeners altered future broadcasts, nor that broadcast trainers directly asked radio listeners to reach out to disadvantaged farmers with the innovative broadcast information.

- While farmers originally listed making monetary gains as the second most important reason for listening to the radio broadcasts, a follow-up study showed that expectations for realizing such profits dropped during or after the course.

REFERENCES:

"Agricultural Broadcasting: A Novel Approach in Calcutta," Pradip K. Dey, *Combroad*, No. 34, January-March 1977.

"Identification of Participants of the School-on-the-Air for Farmers," *Indian Agriculture*, Vol. 20, No. 2, 1976.

Clearinghouse on Development Communication
June 1977

THE RADIO FARM FORUM PILOT PROJECT
Thailand

TARGET AUDIENCE:	Thai farmers and the agricultural extension service
OBJECTIVE:	To test the effectiveness of the radio forum concept in increasing two-way communication between farmers and Thai agricultural extension agents
MEDIA:	Radio and publications, reinforced by interpersonal communications
DONORS/SPONSORS:	The Department of Agricultural Extension (DOAE) of the Ministry of Agriculture and Cooperatives of the Royal Thai Government, and the UNDP/Development Support Communication Service
DURATION:	Conceived in 1968; first executed in 1975; currently being expanded to cover five provinces in 1977 and 15 provinces in 1978
CONTACT:	Mr. Pote Chumsri, Department of Agricultural Extension, Ministry of Agriculture and Cooperatives, Rajadamnern Avenue, Bangkok, Thailand

DESCRIPTION:

Although the *Radio Farm Forum Project* was conceived in 1968, implementation of the project was delayed several years while the DOAE was reorganized. In 1975, a pilot project was conducted to test the applicability of the radio forum concept to Thailand's farming region. After the study area was systematically selected, listening groups were formed with the cooperation of the village headmen. This was followed by peer-selection of four Radio Farm Forum leaders in each of the eight village groups in the project. Finally, training programs for the local forum leaders were activated.

When the parts of the project were in place, weekly radio programs were broadcast. After each half-hour program, village listening groups discussed the content of the program and of supplementary printed materials prepared by DOAE. They were encouraged to comment on both the programs and the literature and to find local practical applications for the ideas and practices both mentioned. Problems that could not be worked out among the village listening groups were referred via the weekly reports prepared by the RFF leaders to the extension officer of the DOAE and to other people or organizations able to offer assistance.

Responses to the listening groups took three basic forms. Radio broadcasts and publications were used to answer some questions, while DOAE field staff and other specialists visited the villages to solve other problems. A third type of contact involved whole groups in trips to seed stores, to university research stations or to demonstration plots, and in both short seminars and film-showing sessions.

RESULTS:

The *Radio Farm Forum Project* increased the flow of information between farmers and extension agents in both directions. The extension agents saw the value of making regular and frequent contacts with farmers and enjoyed the sense of continuity the program gave them. For their part, farmers tended to rely increasingly upon the agents once they came to feel that the agents were dealing with their problems and needs on a timely basis. Moreover, because the messages dealt with specific problems, the farmers tended to remember them. Accordingly, the agents came to take more and more satisfaction in their work. In short, a felicitous self-reinforcing dynamic evolved.

More generally, the project succeeded in organizing interest groups to solve shared problems and in demonstrating the effectiveness of reinforcing consistent messages through various communication channels. It showed the agents that the program was feasible and the farmers that it was desirable. Indeed, farmers from areas adjacent to the radio project inquired about and requested similar programs.

OF NOTE:

- The *Radio Farm Forum Project* successfully combined with an FAO-sponsored project to improve irrigated agriculture in northeastern Thailand. In seeking the joint cooperation of various government departments (the Ministry of Commerce, the Rice Bureau, etc.), and of various international agencies, the project may also have opened up or strengthened intra-governmental and inter-governmental communications lines.

- Farm forums in many cases became forums for other local problems.

- Village headmen were enlisted to help lend legitimacy to the project, and students from the local university and agricultural college helped conduct the field surveys.

- The success of the *Radio Farm Forum Project* prompted the Thai Government to consider integrating the radio forum approach into other activities. The project itself also led to the government's self-appraisal of its capacity to evaluate such efforts.

REFERENCES:

"Summary Report on the Radio Farm Forum Pilot Project," (RB #336), Supalak Purnasiri and Robert S. Griffin, UNDP/DSCS, Bangkok, Thailand, November 1976.

Clearinghouse on Development Communication
June 1977

RADIO EDUCATIVE/PILOT PROJECT IN COMMUNICATION MEDIA IN ADULT EDUCATION
Senegal

TARGET AUDIENCE:	Senegalese farmers, livestock producers, fishermen, and others (roughly two million people)
OBJECTIVES:	To provide food producers with practical information and with the opportunity to express their opinions systematically and effectively; to provide technical training
MEDIA:	Radio, correspondence, film, and interpersonal communication
DONORS/SPONSORS:	The Senegalese Government (sole supporter since 1973) and UNESCO (until 1973), with technical assistance in the preliminary stages from the governments of Canada and France
DURATION:	Initiated in 1968; ongoing
CONTACTS:	Boubacar Sock, EARO UNICEF, P.O. Box 44, 114 Nairobi, Kenya; Henry R. Cassirer, Les Moulins, 74290 Menthon-St. Bernard, France; and Radio Educative, Office de Radio/Télévision du Sénégal (ORTS), B.P. 1765, Dakar, Senegal

DESCRIPTION:

Senegal was the only African nation to take UNESCO up on the offer made in the early 1960s to establish "a pilot center for the production and testing of audio-visual materials and equipment for adult education" in Africa. The project that subsequently emerged had two dimensions: *Radio Educative Rurale* (now called simply *Radio Educative)* and a five-year television component (which ended in 1969). The TV broadcasts, 121 programs in all, were directed to 250 women in Dakar and remained strictly experimental. The radio broadcasts, in contrast, were originally intended for a potential audience of 800,000 (the farm population in the three *Wolof*-speaking administrative regions reached by the pilot broadcasts) and later became nationwide. The primary aims of the project were: to test the use of modern media in the context of adult education in Africa, to create a demonstration center of possible use to other developing countries, to train local people to become technicians and producers, and to help restore to ordinary people the sense of personal power eroded during decades of colonial rule.

The complexity of its mandate and numerous administrative bottlenecks within the Senegalese bureaucracy together kept the radio component from getting into full swing until 1968, when President Senghor himself intervened. Calling for government reorganization and cooperation, Senghor provided the missing ingredient: committed leadership. Under his guidance, *Radio Educative* became an information duct, a change agent, and a government watchdog.

Under the project design finally implemented, 57 radio listening groups were established in the pilot provinces of Thies and Diourbel in the Sine Saloum. Programming was to focus on topics of local and pressing concern — namely, the production and marketing of groundnuts, the responsiveness of government agencies to the peasant farmers' needs, the ways in which debts are incurred and repaid in the villages, and other critical social and health problems. The groups were led by regional staff members of the department of "Animation Rurale" (which has since merged with other government departments) or by animators recruited as volunteers in the village, each of whom took a three-day training course in group dynamics. The third element of this communication system, farmer feedback, took the forms of recordings made in the field and letters. Members of listening groups dictated letters, with the handful of literate members doing double duty as scribes, to the higher-ups in government and to the President himself. In these letters, the peasants aired their complaints, exposed what they believed to be cases of government ineptitude, and took the government to task for standing behind unfair or short-sighted policies — all of this they did without fear of censure and with the intention of making themselves heard.

RESULTS:

The most meaningful indicator of *Radio Educative's* initial impact is probably its effect on national policy. As a direct outcome of the "radio dialogue" begun in 1968, a flood of letters poured into government offices, a flood that eventually moved President Senghor to standardize the price given to groundnut producers (to the great advantage of the producers in remote areas, who were once discriminated against in the marketplace) and to annul in 1970 peasant debts contracted in the purchase of seeds, agricultural equipment, and supplies.

A second indicator of *Radio Educative's* worth is its expansion and its continuation. *Radio Educative* has operated without any foreign assistance since 1973. While some observers feel that the growth in the number of people participating in listening groups has not kept pace with the growth in the number of individual listeners and that the potential of the broadcasts to promote community participation is thus not being realized, overall response has by all estimates remained excellent. More than 500 villages have sent in thousands of letters, and the "malaise paysan" is showing some signs of crumbling in the face of incentives for action and participation.

Over time the listening audience has dispersed, with group listening giving way to individual listening. Reasons for this shift include the disappearance of *Animation Rurale* activity, *Radio Educative's* lack of personnel and transport, and the boom in cheap transistor radios. This tendency has not reduced the project's impact or emphasis on feedback, however.

OF NOTE:

- Since anyone who understands *Wolof* can profitably listen to *Radio Educative's* broadcasts, the actual audience has always exceeded the target audience. In addition, programs in *Peul, Malinke,* and other languages are now being prepared.
- About 70 percent of *Radio Educative's* programs are recorded outside the studio.
- Broadcasting in *Wolof,* which many Senegalese peasants speak, presented special problems to the less than astute moderator of a listening group since *Wolof* has a special feature: a code for transmitting messages intended only for the ears of the initiated.
- Three *Wolof* concepts used to interpret the peasants' statements are "TAWAT" (complaining), "DIGUAT" (disputing), and "THIOW" (making a fuss about a problem).
- Some government employees have complained about *Radio Educative,* claiming that peasants have no need to write the authorities when the authorities' representatives are on hand to hear them out or that it is disrespectful and counterproductive to challenge the existing administrative hierarchy.
- At a pan-African communication conference in Dakar in 1977, Senegal's President Senghor said that "educational radio should above all help peasants to cultivate the most authentic African values — courtesy, a liking for work, and a sense of solidarity — at the same time that it instills in them the sense of thrift, organization and method, qualities more properly European."
- In the early years of the project, some Senegalese viewed it as a UNESCO communication laboratory, while UNESCO employees tended to view the project as a joint venture of mutual benefit to both UNESCO researchers and the Senegalese people.

REFERENCES:

"Radio in an African Country: A Description of Senegal's Pilot Project," Henry R. Cassirer, in *Radio for Education & Development: Case Studies,* Vol. II, World Bank Staff Working Paper No. 266, May 1977.

Communication & Rural Development, Juan E. Diaz Bordenave, UNESCO, Paris, 1977.

"Senegalese Experience in Using Radio Broadcasting for Animating and Educating Basic Communities with a View to Development," Boubacar Sock, a presentation at IEC's Conference on Distance Learning, Dartington, England, September 1977.

Clearinghouse on Development Communication
April 1978

BREASTFEEDING CAMPAIGN
Trinidad and Tobago

TARGET AUDIENCE:	Mothers of infants and pregnant women in Trinidad and Tobago
OBJECTIVE:	To publicize the relationship between breastfeeding and both good nutrition and living standards
MEDIA:	Radio, television, posters, newspapers and periodicals, film
DONORS/SPONSORS:	The Housewives Association of Trinidad and Tobago (HATT), the Association of Advertising Agencies of Trinidad and Tobago with support from the Ministry of Health, the Caribbean Food and Nutrition Institute (CFNI), and the Medical Association of Trinidad and Tobago
DURATION:	Conceived and implemented in 1974; scheduled to be re-run in late 1977
CONTACT:	Alison White, Nutritionist, 13 Santa Anna Gardens, Maingot Street, Tunapuna, Trinidad

DESCRIPTION:

The *Trinidad and Tobago Breastfeeding Campaign* involved various private and governmental agencies in an effort to use the national mass media to promote breastfeeding. Coordinated by HATT with the support of the Advertising Agencies of Trinidad and Tobago, the campaign was planned in the early months of 1974 and officially launched in May.

Employees of the involved advertising agency received a three-page brief designed to describe the nutritional and economic aspects of breastfeeding and to convince them that they had a product worth selling. Once the advertising texts and artwork for the campaign were developed, clinic staff members and other health personnel were also briefed about the project and brought up to date on the benefits of breastfeeding.

Radio and television spot announcements reiterated messages carried by newspapers, posters, and handbills. The campaign was managed by media professionals who coordinated nine television programs and a series of daily five-minute radio broadcasts (called "Keeping Abreast with Man's History") with press coverage. Discussions among schoolchildren and community groups were also part of the campaign, as were both centrally located and mobile library displays.

A key element in the breastfeeding project was the donation of time, expertise, and services by advertising agencies, governmental departments, media, commercial firms, and private citizens. These gifts were supplemented by rate reductions and other production advantages.

RESULTS:

CFNI's two-phase evaluation of the project entailed five objectives: (1) to find out what portion of the target audience had been reached; (2) to determine how much the messages influenced those who heard them; (3) to ascertain whether the women reached by the messages agreed with their content; (4) to discover whether nursing women had altered their breastfeeding practices; and (5) to obtain further information on Trinidadian women's breastfeeding practices.

On the basis of its evaluation, which constituted CFNI's major contribution to the program, the CFNI staff deemed the breastfeeding campaign a success and concluded that the components of the campaign ought to be made permanent features of Trinidad's nutrition education program. It also affirmed the effectiveness of the multi-media approach; the team further recommended that even more time and space in the mass media be devoted to this vital issue.

OF NOTE:

- The wife of Prime Minister Manley of Jamaica endorsed the breastfeeding campaign in a pre-arranged tape-recorded conversation with HATT's president. The endorsement was later aired in support of the campaign.

- Fathers of infants were invited to a Father's Day function at which the merits of breastfeeding were discussed.

- Short films showed mothers and nurses in clinics testifying to the nutritional soundness of breastfeeding.

- The *Trinidad and Tobago Breastfeeding Campaign* will be covered in a forthcoming book by Dr. Derrick B. Jelliffe and E.F. Patrice Jelliffe on breast milk in the modern world.

- Radio stations donated more time to spot announcements than they had first promised to devote to the breastfeeding project.

REFERENCES:

"The Trinidad and Tobago Breastfeeding Campaign," Alison White, paper presented at the IXth Technical Group meeting of the Caribbean Food and Nutrition Institute, Kingston, Jamaica, September 1976.

Clearinghouse on Development Communication
June 1977

ASSISTANCE TO RURAL BROADCASTING
Afghanistan

TARGET AUDIENCE:	Farmers in the Afghan provinces of Wardak, Logar, Kunduz, and Herat (approximately 17,500 people)
OBJECTIVES:	To improve rural broadcasting as a means of supporting rural development activities and to test the feasibility of establishing in Afghanistan a communication system involving radio, cassettes, and farmers' feedback
MEDIA:	Radio, tape recorders and cassettes, and interpersonal communication
DONORS/SPONSORS:	Food and Agriculture Organization of the United Nations; Afghanistan's Ministries of Agriculture and Education; Australia's FFH/AD; and Radio Afghanistan
DURATION:	Initiated in 1973; implemented in 1976; Phase I terminated in 1977; Phase II pending
CONTACTS:	Trevor L. Stockley, Rural Broadcasting Specialist, Ministry of Agriculture, Kabul, Afghanistan; Abdullah Naik, General President of the Extension Department, Ministry of Agriculture, Kabul, Afghanistan; S.Y. Wasiq, Director, Radio Afghanistan, Kabul, Afghanistan; and Fazel Rahim, Deputy Minister for Agriculture, Kabul, Afghanistan

DESCRIPTION:

The Assistance to Rural Broadcasting Project took shape in 1973 following meetings in Afghanistan of government officials with the Chief of FAO's Development Support Communications Branch. The project was designed to reflect the Afghan Government's desire to keep farmers apprised of improvements in agriculture and livestock-production techniques and to make them aware of the existence and availability of credit, equitable means of distributing irrigation water, and the possibility of forming farmers' cooperatives. By the time the political and logistical obstacles to implementation had dissolved, 1976, the project had acquired a second dimension — that of a communication support system for the national land reform then in progress.

Abandoning early plans to establish and then to test the feasibility of a rural radio forum in Afghanistan, the project directors decided that a communication system involving radio, cassettes, and farmers' feedback would meet local needs better than the conventional radio forum could. Accordingly, tape recorders and one hundred tapes were purchased, and a survey aimed at determining the kinds of information that farmers wanted and could use (and that project employees could provide) was carried out. In December 1976, tapes produced on the basis of the survey findings were circulated in two provinces.

The radio component of the communication system was already well-established in the project area when the project began. Radio ownership in rural Afghanistan is high and the Ministry of Agriculture's Department of Extension and Development has been contributing twenty minutes of programming to the nightly broadcast of "Village, Home and Agriculture." However, members of the production corps and listeners alike were far from satisified with the quality and content of the broadcasts. To upgrade program effectiveness, then, a foreign consultant was brought into the Radio Unit of the General Directorate of Information and Publishing of the Department of Extension and Development to provide in-service training for one year to the seven full-time staff members. At the same time, additional recording equipment was bought and a staff vehicle was secured for use in making field trips and collecting farmers' feedback.

Fifty-six extension agents from eight extension units were selected to participate in the project. After being briefed and receiving radios, these agents conducted the sixteen meetings that served as the pre-project survey and visited villages on Wednesdays (when "Village, Home and Agriculture" was broadcast) to drum up interest in the radio broadcasts, to distribute cassettes (in Wardak and Logar only), and to solicit farmers' requests, criticisms, questions, and comments.

Reflecting both the strengths and difficulties encountered by staff members in this project, tentative plans for extension of the project beyond the pilot phase specify that the combination of radio, cassette recorder, and extension agent be retained, that a full-time technician/maintenance person be hired, that Radio Unit personnel be well-versed in either agriculture or extension work, that a filmstrip component be added to the media mix, and that more study be devoted in the future to measuring the rate at which farmers adopt improved practices.

RESULTS:

Records kept by the extension agents show that 3,883 of the roughly 17,500 farmers in the target area had heard at least one tape — a finding confirmed by an extrapolation of the figure (22.5 percent) reached in the evaluation survey. In contrast, two out of every three farmers in the area had heard programs on the national land reform, and four out of five of those who heard the message felt that all their questions had been answered satisfactorily.

In addition to exposure to the medium and the message, increases in knowledge, the correlation of contacts (with tapes and extension agents) with radio-listening habits, the relationship between the specificity of the message and the likelihood that the hearers will act upon it, the relationship between the tendency to provide feedback and the tendency to take action based on newly acquired information, and the relationship between the timeliness of the message and the adoption of advice were all studied.

Not surprisingly, the spread of ideas proved easier to trace than the spread of improved agricultural practices. Moreover, little effort was made to measure changes in farming techniques since the project resources were limited. Research did, however, establish that farmers in the experiment acquired information that they considered useful, tended to value cassette-carried (as opposed to that passed from farmer to farmer) information more as they grew accustomed to the medium, and contended more or less unanimously that "Village, Home & Agriculture" had improved markedly during the year of the experiment. The evaluation survey also showed that half the farmers who had heard the tapes listened regularly to the radio broadcast, compared with three in ten of those who had not heard the tapes. As for the hypothesis that the more tailored a particular recommended technique is to local needs the more likely it is to be tried, it held good for only three of the five variables tested.

OF NOTE:

- The pre-broadcast survey revealed that farmers tended to be interested in topics that are seasonal, local, and related to decisions they have to make. Specifically, the cassettes carried information on the control of rye grass in wheat, of rust and smut in wheat, on the pruning of fruit trees, and on the control of field mice.
- Field trips related to the project were far more than whirlwind tours. Some lasted as long as 25 days.
- Post-project research indicated that receptivity to the broadcast and taped messages had nothing to do with a farmer's age and that level of education correlated with willingness to try a new practice with respect to only one of the five variables measured.
- The FAO-employed consultants who conducted the in-service training for members of the Radio Unit developed a training manual, "Notes on Communicating Through Radio," and a glossary of technical terms.
- Wardak and Logar were selected as sites for the cassette experiment because agriculture extension programs in both were already active, farmers and village leaders were prepared to participate in the project, local authorities promised to cooperate, other development projects were under way, control groups could be identified for experimental purposes, and roads were good enough to permit year-round access by a vehicle with four-wheel drive.

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"Assistance to Rural Broadcasting — Afghanistan, Terminal Report", TF.AF6.10(FH), Trevor L. Stockley, Food and Agriculture Organization of the United Nations, Rome, July 1977.

"Development Communication in the Provinces of Wardak, Logar, Kunduz and Herat," Draft, F.A.O., Rome, October 1977.

Clearinghouse on Development Communication
April 1978

(While it is standard procedure at the Clearinghouse to ask persons intimately involved with the projects described in this series to review the draft Profiles, strenuous efforts to obtain such comments before the publication deadline were in this case unsuccessful.)

MASS MEDIA NUTRITION-ADVERTISING CAMPAIGN
Philippines

TARGET AUDIENCE:	Rural low-income households in the provinces (approximately 2.5 million inhabitants)
OBJECTIVES:	To test the effectiveness of modern marketing and advertising techniques in changing behavior, attitudes, and knowledge related to the nutrition and health of infants
MEDIA:	Radio and limited interpersonal communication
DONORS/SPONSORS:	The Philippine Government, the U.S. Agency for International Development, and the National Media Production Center of the Philippines
DURATION:	Late 1975 to late 1976
CONTACTS:	Dr. Florentino Solon and Dr. Josefina Patron, National Nutrition Council, Ministry of Health and Nutrition, Manila, Philippines; Candy Formacion, Department of Nutrition, University of Iloilo, Iloilo City, Iloilo, Philippines; and Thomas M. Cooke, Manoff International, Inc., 2080 L Street, N.W., Washington, D.C. 20036

DESCRIPTION:

The Mass Media Nutrition-Advertising Campaign was launched in recognition of the sorry nutritional status of many Filipino children and of the inadequacy of using traditional means to counsel the mothers of underweight babies. Apprised of the successful use of advertising and marketing techniques to reach undernourished populations in India and Ecuador with practical tips on diet and food preparation, Filipino nutritionists in the National Nutrition Council decided to try that approach. Their specific goal was to get Filipino mothers to enrich with chopped vegetables, oil, and fish the watery rice porridge *(lugaw)* given to their infants to supplement breast milk. The hidden task, more difficult than spreading messages, was to overturn some ingrained and incorrect — but widely held — ideas about the nutritional needs of the newborn.

The project activities began in 1975, when the U.S. Agency for International Development agreed to provide funds to hire a U.S.-based advertising and social communication firm to work with Filipino planners to design, carry out, and evaluate the campaign. The first step involved the U.S. team and their local counterparts in an exploratory trip through the target site (Iloilo Province, rural population 700,000). Early visits were scattershot attempts to gather impressions while later forays were part of a controlled survey of carefully selected mothers. The baseline survey revealed that only 3 percent of the mothers in the project area had heard of the practice of adding oil to *lugaw* and that none had actually tried it. More mothers (5 and 17 percent, respectively) had tried adding vegetables and fish to the mixture.

Message development, the second stage of the project, proceeded according to principles followed in commercial advertising. Message designers assumed that creating interest in a particular idea requires enlisting sympathy for the proposer of the idea — a feat that involves making sure that the message bearer is perceived as sane, likable, authoritative, and deserving of respect. They also took pains to insure that the change under discussion was not viewed as more sweeping or disruptive than it actually was. These and compatible beliefs informed the six 60-second spot dramas that were eventually developed, tested, revised, recorded and sent out to area radio stations.

The six pre-recorded messages were broadcast in rotation from 15 stations during both the morning and evening hours, the times rural families are most likely to listen. Once the broadcasts began, the locally recruited project workers distributed information on the concepts being promoted and on the campaign itself to the health and nutrition rehabilitation centers in the project area. Related information that had been developed with the help of Filipino doctors in another context was also supplied to the radio stations for distribution in response to listener requests. Broadcasts continued uninterrupted for one year.

Since the ability of radio messages alone to change food patterns was to be tested, no other special educational activities were undertaken during the test period. Doctors, nurses, and rural community workers were informed of the rationale of the campaign, but they were not encouraged to carry out any special education programs.

RESULTS:

A pre-project survey, an interim survey conducted in May of 1976, and a post-project questionnaire were used to evaluate the impact of this campaign. The interim survey, conducted in May of 1976, revealed that the percentage of mothers who added oil to *lugaw* increased from 0 to 23 in eight months. The number adding vegetables rose from 5 to 17 percent, and those adding fish rose from 17 to 27 percent. The comparable figures calculated after the final survey were 24 percent for oil, 17 percent for vegetables, and 27 percent for fish.

The post-project interviews also revealed that radio's role as a source of nutrition information was most strongly evidenced by the target audience's reports of adding oil. On the other hand, participation in and knowledge of existing nutrition and health service programs were more closely associated with adding vegetables and fish, traditional themes of nutrition education. No relationship between adding oil and these programs was found. This suggests that the innovation of adding oil may be attributed to the radio messages.

A separate survey of community health workers in the test area supported the findings of the household survey.

OF NOTE:

- The phrases and idioms that mothers used in the preliminary pre-project interviews were woven into the broadcast scripts and messages.
- Local health and nutrition workers served as hosts and guides to the survey team. For many, the survey offered the first chance they had had in months to visit remote places and talk with the people they are supposed to serve.
- In the first months of the campaign, the "Vegetable Message with Doctor" was played more frequently than the "Oil Message with Doctor" simply because station managers failed to understand that each message must receive the same exposure because each is vital and different from the others. This problem was cleared up in a meeting of station managers.
- The same U.S.-based advertising firm that conducted the campaign in the Philippines conducted similar projects in Ecuador, Nicaragua, and the Dominian Republic, as well as other social communication projects in the United States.
- A mini-drama format was selected because the "novella" (or soap opera) is extremely popular in the Philippines and because it can accommodate the conflict that always arises when an unorthodox idea is presented.
- According to the advertising firm in charge of the campaign, the virtues of spot ads are many. Production costs are low, the passive listener is reached, spots can be inserted within and between the most popular programs, and spots do not tire the listener the way lectures or discussions sometimes do.

REFERENCES:

"Five Nutrition Projects That Use Mass Media," Joanne Leslie, *Development Communication Report*, September 1977.

"Whose Milk Shall We Market Over the Mass Media?" Ricahrd K. Manoff and Thomas M. Cooke, Manoff International, Inc., League for International Food Education, *Newsletter*, September 1977.

"Innovative Uses of Mass Media for Food and Nutrition Promotion," Richard K. Manoff, paper delivered at the Ninth Technical Group Meeting on Nutrition and the Mass Media, Caribbean Food and Nutrition Institute, September 1976.

"Changing Nutrition and Health Behavior Through the Mass Media: Nicaragua and the Philippines, An Interim Report," Manoff International, Inc., September 1976.

Clearinghouse on Development Communication
July 1978

MAN IS HEALTH *(MTU NI AFYA)*
Tanzania

TARGET AUDIENCE:	Approximately one million adult villagers
OBJECTIVE:	To provide villagers with basic information on disease, disease control, and the relationship between environment and health
MEDIA:	Radio, cassette recorders, printed materials, interpersonal communication, flipcharts, and posters
DONOR/SPONSOR:	The Government of Tanzania with support from the Swedish International Development Authority
DURATION:	Conceived in 1971; developed in 1972; carried out in 1973
CONTACTS:	C. Zikarnbona, Planning and Research Department, Institute of Adult Education, University of Dar es Salaam, Dar es Salaam, Tanzania; Budd L. Hall, International Council for Adult Education, The Ontario Institute for Studies in Education, 252 Bloor St. West, Toronto, Canada M5S 1V6

DESCRIPTION:

The *Man is Health* project took root in late 1971 as a large-scale campaign aimed primarily at educating villagers on the symptoms, prevalence, and origins of five potentially controllable widespread diseases. The secondary objective of the project's designers was to provide the newly literate with an opportunity to practice their language skills. Under the combined auspices of the Tanzanian Ministries of Health, Education, and Rural Development, the campaign represented an attempt at integrated development.

The project was backed and set in motion by Tanzania's sole political party (The Tanzanian African National Union (TANU), The Institute of Adult Education, a half dozen government agencies, and Radio Tanzania. Officials at all levels were versed in the project's importance and facets; industry was called upon to manufacture clothing stamped with the project's logo; and broadcasters and journalists were charged with keeping the public informed of all campaign-related activities and ideas.

Some 18 months of planning, organizing, and training culminated in May of 1973 with a surge of educational and community-development activities. Each week for ten weeks each study group of from 15 to 60 met informally with a trained discussion leader to hear radio broadcasts and to discuss simple supplementary texts provided by the government. From these discussions of health and sanitation sprang community work projects conceived and carried out by the study groups in their own villages.

RESULTS:

An estimated two million Tanzanian adults, twice the number officials had hoped to reach, participated in the *Man is Health* project. Moreover, the overall attendance rate of those who attended from the beginning was 63 percent, an unparalleled achievement for a campaign of such breadth. A third indicator of success is also tangentially statistical: so pervasive was the health campaign's impact that project evaluators had to reclassify some of their control groups as experimental groups.

The campaign had its critics. Some felt that it failed to integrate existing health services into its "curriculum." Some complained of tie-ups in the distribution of the texts and materials. Others felt that the training activities were too sketchy. Nevertheless, concrete evidence of the campaign's effects on the quality of village life is everywhere. In particular, hundreds of thousands of latrines were built by those who heard the radio programs, sales of mosquito netting jumped sharply in some areas, and coastal townspeople filled many of the swamp holes in which disease-carrying insects breed after heavy rains.

OF NOTE:

- Each study group left at least one "monument" to the *Man Is Health* campaign. Typical projects involved digging wells or clearing living areas of insect-infested vegetation.
- Some study groups continued to meet months after the health campaign ended.
- Reliance upon cell leaders in several districts reinforced the ten-house cell system as a means of stimulating participation in development.
- The texts and the study guides were printed on newspaper presses. A million copies were distributed, many of which were shared.
- Some study groups reportedly diagnosed diseases that afflicted group members and sent the victims to nearby hospitals, where the diagnoses were confirmed and the patients treated.
- The network of study group leaders established in the health campaign was reactivated for the national nutrition campaign, *Food Is Life*, that began in June of 1975.

REFERENCES:

"*Mtu Ni Afya:* An Evaluation," Budd L. Hall and C. Zikambona, *Institute of Adult Education Studies*, No. 12, Dar es Salaam, 1974.

"*Radio for Education and Development: Case Studies,*" Vol. Two, Peter L. Spain, Dean T. Jamison, and Emile G. McAnany, eds., The Dept. of Education, The World Bank, Washington, D.C., May 1977.

Clearinghouse on Development Communication
June 1977

Appendix 4

Budget

ZAA NA UWATUNZE
Kenya

TARGET AUDIENCE:	Kenyans within the national radio-broadcast sphere
OBJECTIVES:	To mix entertainment and education in an effort to spread vital messages on health, particularly on that of mothers and infants
MEDIA:	Radio
DONORS/SPONSORS:	UNICEF, the United Nations Fund for Population Activities, the Voice of Kenya, and the Kenyan Ministry of Health
DURATION:	Begun in February of 1975; pilot phase concluded in mid-1976; ongoing under the auspices of the Government of Kenya since 1976
CONTACTS:	Abigail Krystall, Bureau of Educational Research, Kenyatta University College, Box 43844, Nairobi, Kenya; Dr. Albert Maleche, Bureau of Educational Research, Kenyatta University College; Mark Harris, UNICEF, Communications and Information Office for Eastern Africa, P.O. Box 44145, Nairobi, Kenya

DESCRIPTION:

In 1975 UNICEF, the United Nations Fund for Population Activities, and the Voice of Kenya agreed to co-produce entertaining health-education programs for open broadcast. The series that grew out of the collaboration, *Zaa Na Uwatunze* (Giving Birth and Caring for Your Children), features nationally-known entertainers in an episodic situation comedy. The upbeat presentations cover down-to-earth subjects — the nutritional value of eggs, the dangers of entrusting infants to the care of young siblings, and the need for inoculation, etc. — and give listeners a chance to identify with both the situations and the characters.

Like all "soap opera" regulars, the characters in *Zaa Na Uwatunze* are stereotypes, and their predictability is redeemed by their exaggerated flair. The role of Mzee Pembe is that of sop. He is hidebound, given to drink, and blissfully ignorant of many of the needs and problems of his 16 children. Mama Njeri, the protagonist, is Mzee Pembe's opposite and his mate. Her children's welfare claims her nearly complete attention, and she must "educate" her stubbornly conservative husband besides. Her dramatic task is to convince him episode-by-episode and change-by-change that it is in the family's interest to embrace some new ways and to let some traditions lapse. She is aided in this domestic struggle by a series of third parties, all of them played by a single versatile actor.

Zaa Na Uwatunze (popularly known as the Kiroboto show) is broadcast in Swahili, Kenya's official language, once a week. Broadcasts last only 15 minutes each, but they command prime-time programming slots (on Sunday afternoons, and occasionally on Saturday nights). No scripts are used to produce the programs, although health educators and a U.N. consultant work closely with the actors, and the budget is shoestring by almost any standard. An ingredient that compensates for this lack of high-priced production techniques is spontaneity. The radio shows are recorded in studios packed with fans, so the actors play to the audience and use instant feedback to strengthen their performances.

An experiment in open broadcasting (which, by definition, aims to hold a mass audience that has no particular commitment to the subject matter or to self-education), *Zaa Na Uwatunze* has been linked to nonformal and formal educational activities for adults. Its episodic structure, characters, and allusions to themes treated in previous broadcasts seem to provide listeners with some sense of continuity and progress. Moreover, the programs reiterate the themes being taken up by health educators and field-workers, some of whom act as consultants to the production staff.

RESULTS:

The impact of the *Zaa Na Uwatunze* broadcasts has been calculated primarily in terms of the size of the listening audience, listeners' recall of health information, and their familiarity with the characters. No attempt has been made to study the effects on health practices of the knowledge gains and attitude changes brought about by the program.

Evaluative information has been garnered from four sources: the studio audience, fan mail, a questionnaire administered at the end of *Zaa Na Uwatunze's* first broadcast year, and two panels of government officials involved in rural education and rural development. Interestingly, the judgments of the panels of experts clashed with the evidence culled from the other sources, some experts insisting that the programs take on a more serious tone and the audience claiming to like the blend of message and madness.

One finding of the 510-person survey conducted in December of 1975 may explain this difference of opinion: highly educated Kenyans appeared least responsive to the programs, ostensibly because the information embedded in the comedy is not "news" to them. Other findings of the survey include the fact that 92 percent of those responding to the questionnaire knew of the program, the discovery that listening time was as great among those for whom Swahili is a second language as for those for whom it is the native tongue, the fact that radio ownership correlates directly with listenership, and the revelation that the programs seem to hold roughly equal appeal to all age groups (25 years of age and under, 26 to 50 years, and over 50 years). Given the nature of this broadcast experiment, the single most important conclusion drawn from early evaluations may be that somewhat over a third of the listening audience claimed to listen to the program primarily because it is funny, while over half said they tuned in because they felt that they learned something from the humorous shows.

OF NOTE:

- The characters in *Zaa Na Uwatunze* don't stand on ceremony. In one episode, the beleagured wife threatens to sell herself if her husband continues to sell the family's much-needed eggs to buy beer.
- Fan mail for Mzee, Mama, and the stock characters has been received from listeners in several East African countries besides Kenya.
- The radio scripts are based on a standby formula from advertising. The object is to contrive a situation in which the audience identifies with the "straight man" who espouses sound ideas and laughs at the fool who upholds convention for its own sake.
- The *Zaa Na Uwatunze* series has been replicated in both Tanzania and Zambia, apparently with success.
- Some *Zaa Na Uwatunze* broadcasts were taped for use in cassette-listening forums sponsored by the U.N. Food and Agriculture Organization in conjunction with the Programs for Better Family Living under way in Kenya. Cassette recordings of the series are also being used in in-school home economics classes and in training programs for field-workers.
- A short film on *Zaa Na Uwatunze's* production techniques may be made by UNICEF for promoting the use of entertaining radio broadcasts in support of development projects

REFERENCES:

"Health Messages Through Humor," Susan Hostetler, *ICIT Report*, No. 15, Clearinghouse on Development Communication, July 1976.

"Popular UNICEF Radio Show in Kenya Gives Health Tips in Situation Comedy," Michael T. Kaufman, *New York Times*, November 16, 1975.

"The Kenya Radio Series which Teaches as it Entertains, and How You Can Do It," Mark Harris, United Nations Children's Fund, Nairobi, April 1976.

Miscellaneous translations of *Zaa Na Uwatunze* radio scripts, unpublished and undated.

Clearinghouse on Development Communication
October 1978

ASSOCIATION OF RADIO CLUBS OF NIGER
Niger

TARGET AUDIENCE:	Adult Nigeriens, especially those living outside the city
OBJECTIVES:	First, to provide information and advice in local languages to rural Nigeriens on matters related to their daily needs and to the improvement of their living conditions; second, to publicly broadcast farmers' opinions and statements on discussion topics
MEDIA:	Radio, tape recorders, print, and interpersonal communication
DONORS/SPONSORS:	Radio Broadcasting Service of Niger, the Nigerien Planning Ministry, Radio Niger, Nigerien Commission for Youth Activities, Nigerien Commission for Mass Information, and the French Government
DURATION:	Founded in June 1962; ongoing
CONTACTS:	Boubacar Danrani, Responsable de l'ARCN, B.P. 605 Niamey, Niger; Stephen Grant, Service d'Evaluation, B.P. 4717, Abidjan, Ivory Coast; Robert Lefranc, Director, Centre audio-visuel, Ecole Normale Superieure, Saint-Cloud, France

DESCRIPTION:

The Association of Radio Clubs of Niger (ARCN) was established in June 1962 under the auspices of the Radio Broadcasting Service, Radio Niger, and government officials. Its founders' goals were to promote democratic practices in Nigerien villages, to identify and train village leaders, and to set up reception centers. Underlying these objectives was the desire to provide villagers with the means to customize local programming, ridding it of its alien urban stamp, and to make heavy use of village feedback in centrally produced programming.

Radio was a natural choice as the medium to mine public opinion and to broadcast educational and civic programs because the oral tradition has long prevailed in Niger. The power accorded the spoken word has also forced the *ARCN* project staff members to devote scrupulous care to the formation and translation of messages and programs. The producers in Niamey prepare radio-programs in three languages: Haoussa, Djerma, and Tamachec. The programs can be classified according to three types: lectures on topics of general interest to all Nigeriens, talks on subjects of regional interest, and taped free-form discussions by participants of issues covered in either of the first two categories of programs. Topics of general interest range from agricultural credit and environmental protection to the function of parent-teacher associations. Regionally broadcast programs include discussions of various Nigerien cities and their problems.

Listening clubs were originally formed by village volunteers supervised by the central office staff (composed at present of a coordinator, one producer and two assistant producers, one writer, a maintenance technician, two secretaries, and a chauffeur). Gradually, the need to pay these organizers became clear, and now animators — most of whom are civil servants, teachers, male nurses, and agricultural advisers under 35 years of age — are recruited selectively and given a three-week training course on national development goals, media equipment use, data collecting, and group dynamics. Animators, who are paid both a flat fee and an increment based on productivity, are responsible for taping interviews with both the participants and resource persons, leading the weekly post-broadcast discussions, and collecting feedback from the participants. They receive support from Niamey in the form of mimeographed discussions of the upcoming program topics, instructions for handling discussion, lists of sample discussion questions, and standard forms for use in program evalution.

The number of listening clubs formed to consider and create programs has fluctuated, averaging more than forty in the project's first years, peaking at seventy, and holding steady at about thirty in 1978. *ARCN* officials are apparently unconcerned about the decline, however, preferring quality to quantity in a program intended to remain experimental.

RESULTS:

No evaluation of the *Association of Radio Clubs of Niger* has been conducted for more than a decade, and no quantitative evaluation of learning gains or awareness levels has ever been attempted. A report published in the early years of the program's operation contained claims that the listening clubs and the broadcasts had had far-reaching effects in terms of identifying local leaders, creating a psychological climate favorable to national development efforts, and stimulating community works projects and other social advances. Little concrete evidence supports such claims, however, so the project's success can only be measured in terms of *ARCN's* longevity (at 15 years, something of a record among development-communication projects) and its enrollment (estimates of which vary).

OF NOTE:

- The rate of return of feedback forms by the animators is reportedly 100 percent.
- Programs in Tamachec, the language of many Nigerien nomads, are broadcast only in the summer months, when the desert dwellers drive their livestock to the salt licks. Transistor radios, as well as salt blocks, are part of the camel-carried baggage of the migratory tribes.
- "Start from the standpoint of life as it now is, explain it — and transform it," is the stated philosophy of *ARCN's* promoters and programmers.
- Surveys, radio transmissions, and discussions cover only simple and concrete subjects.
- Nominal fees are collected from the *ARCN* club members, but most participants do not officially register, and revenues from participants amount to only a fraction of the sum provided annually in government appropriations and subsidies.
- Among measures taken to keep newly trained instructors from becoming intellectually isolated are systematically reviewing their work, circulating a journal containing relevant pedagogical texts, and conducting written exams to identify and reward high achievers.
- Care has been exercised to make sure that government officials, some of whom objected to *ARCN* at its outset on grounds that it was unnecessary or counterproductive, see *ARCN* as complementing and supplementing their work.
- Radio Programs, which are broadcast first on Monday night and repeated on Thursday at the same time, are always revised before they are re-broadcast. Many are run during one week only.

REFERENCES:

"A Recent Look at Niger's Radio Clubs," Stephen Grant, Abidjan, Ivory Coast, unpublished paper, 1978.

"Radio Clubs in Niger," Robert Lefranc, in *New Educational Media in Action: Case Studies For Planners*, Vol. III, UNESCO, 1967.

"Radio-Clubs du Niger: Twenty Questions, Twenty Answers," Mimeograph, ARCN, undated.

Clearinghouse on Development Communication
October 1978

Schedule of Costs for:

1. Transmission Equipment:

1 - Omni Directional Antenna	$ 300
1 - Antenna Change Over Switch	2,000
300 - Feet ½ Inch Low Loss Cable	324
1 - 10KW AM Transmitter	38,000
2 - Link Transmitters	2,500
2 - Link Receivers	1,300
2 - 10 Element Yagi Antennas	700
1 - Radio Telephone For Vehicle and Base Station	4,000
1 - Transmission Switch	2,000
Acceptance Testing and Training	5,000
	$56,124

2. Studio Equipment:

1 - Audio Console With Monitoring Facilities	$12,000
3 - Tape Recorders (Studio)	3,500
2 - Turntable With Pre Amps	1,700
1 - Record/Playback Cartridge Machine	1,500
3 - Single Slot Playback Cartridge Machines	4,500
1 - Cassette Dubbing Console	4,000
1 - Cassette Record/Playback Deck	400
6 - Portable Studio Quality Recorders	1,800
50 - Portable Field Quality Recorders	2,500
4 - Reel to Reel Recorders	1,600
2 - AM/FM Receivers For Monitoring	1,000
2 - Portable Audio Mixers	300
1 - Standby Generator	10,000
1 - Photo Copying Machine	5,000
Microphones, Cables etc.	1,000
	$50,800

Appendix 5

CABLE FROM

US/AID - KINGSTON

ACTION COPY

UNCLASSIFIED

Department of State

INCOMING TELEGRAM

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ACTION AID-20

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AIDAC

E.O. 12065: NA
SUBJECT: COMMUNICATION APPLICATION PROJECT - JBC RADIO

1. MISSION HAS RECEIVED A COPY OF THE PROJECT PAPER ON COMMUNICATION APPLICATIONS: SUBPROJECT #1, AGRICULTURAL RADIO IN JAMAICA. THE PAPER DESCRIBES CLEARLY THE GOALS, OBJECTIVES AND INPUTS DISCUSSED BY THE MISSION, J.B.C. AND DSB OVER THE PAST YEAR.

2. AN AID SPONSORED SEMINAR, "THE ROLE OF COMMUNICATION IN NATIONAL DEVELOPMENT" IS SCHEDULED FOR JUNE 1 - 6. THE CONFERENCE WILL ADDRESS ITSELF SPECIFICALLY ON THE USE OF RADIO IN AGRICULTURAL DEVELOPMENT IN THE PINDARS RIVER - TWO MEETING WATERSHED AREA, AN ONGOING AID PROJECT.

3. THE PROPOSED ASSITANCE TO JBC IS IMPORTANT TO THE AGRICULTURE ACTIVITY. IF APPROVAL OF THE PROJECT COULD BE ANNOUNCED AT THE SEMINAR IT WOULD NOT ONLY BE NEWWORTHY, BUT IT WOULD LEND GREATER REALITY TO THE DISCUSSION.

4. THE MISSION SUPPORTS FULLY EARLY APPROVAL OF THE PROJECT PAPER.

5. PLEASE ADVISE PROGRESS.
LAWRENCE

UNCLASSIFIED

ANNEX B

SUBPROJECT

GUYANA HEALTH: TWO-WAY RADIO

Two-way Communications for Health in Guyana

SUMMARY

Under this project DS/ED would support a project undertaken by AID/Georgetown. The mission is funding the purchase and installation of two-way radio units for a pilot project to facilitate communications between health care provides (MEDEX) in remote areas of the country. Under DS/ED funding the pilot project will be analyzed and recommendations will be made for optimun ways in which such systems can be used for in-service training, to improve admistrative efficiency and to augment medical supervision. (See utilization planning section) The system use will be evaluated and recommendations will be made for a second phase extension of the pilot project into a large scale operational system. (See Evaluation section) $12,690 has been allocated for these purposes. DS/Ed funding will also support the development and testing of a training module designed to assist the health care providers in using the two-way radio system effectively. (See Training section) $7,310 has been allocated for this purpose. The total cost to DS/Ed is $20,000. The AID/Georgetown mission costs for the pilot project are $30,775.

The information gained under DS/Ed funding will become an integral part of the MEDEX health care system in Guyana which is being extended considerably over the next 5 years. Recommendations from the planning, evaluation and training component will enter the MEDEX training module and operations manual. Additionaly, the activities have world-wide implications since the use of 2-way communications in support of health care delivery for remote and rural areas is of increasing interest to LDC's.

INTRODUCTION

This proposal complements the reports by two technical consultants, provided under the Studies content, which address technical systems considerations and which are the basis for AID/Georgetown procurement of a two-way radio system.

In order to make optimum use of a two-way radio system in support of peripheral health care, the uses and applications of such a system have to be surveyed and planned. The users of such a system should receive training not only in basic equipment maintenance, but also in communications techniques to develop effective, efficient and satisfying uses of the two-way system.

In order to design such an applications program the primary health care structure of the project area must be analyzed to see where, under what circumstances and how best use can be made of the system.

The following is an initial proposal to undertake such a planning exercise in support of the MEDEX program in Guyana and to develop a pilot project which will feed into future operational communications system planning as well as into administrative planning and MEDEX training and in-service education.

BACKGROUND

The Ministry of Health of Guyana is in the process of reorganizing its health care delivery system. A key link in the new system will be mid-level health care providers, MEDEX. MEDEX will be posted in rural and remote health care centers, where they will be responsible for varying numbers of community health workers, located in nearby villages. Their functions include clinical-medical work as well as community health activities. Usually at the center they would be assisted by community health nurses and allied health workers.

A first class of 22 MEDEX has graduated. The second class will graduate in June 1979. The training of the MEDEX is being funded by IDRC until December 1979.

AID/Georgetown is developing a project paper proposing to continue the MEDEX training as well as to assist the Ministry of Health to institutionalize the MEDEX as part of the health care delivery system.

The deployment of 5 MEDEX of the first graduating class into remote communities has identified the urgent need for two-way communications to support them in their work. The lack of adequate communications has been shown to be detrimental to the effective and efficient utilization of the MEDEX in the field. Specific problems include:

PROBLEMS

1. Insufficient access to medical supervisors for consultation.
2. Lack of routine supervision of MEDEX performance.
3. Delays in handling administrative matters, including ordering of supplies.
4. Difficulties in organizing logistics of patient referrals, particularly evacuations.
5. Difficulty in getting feed-back from the field into the design of training modules.
6. Fostering of a sense of isolation, professional and social by the MEDEX in remote areas due to lack of contact with colleagues.
7. Difficulty in providing community/family with reports on the health status of a hospitalized member.
8. Insufficient access to epidemological information, such as outbreak of infectious illnesses within or outside the community, which may effect public health status.

DESCRIPTION

The MEDEX program in Guyana is assessing the communications requirements to support the health care providers in the periphery. In order to design an optimal communications support system for the program, to devise associated

training modules as well as to develop and test the services such a system could provide, a pilot project has been proposed. The pilot project would link 10 field sites with MEDEX Georgetown. The findings from the pilot project will be the basis for the implementation of the two-way radio system and its usage in the overall program.

THE SERVICES

The pilot project would develop and test the following services:

1. provide assistance to the MEDEX in support of medical emergencies,
2. provide a channel for medical consultations between the MEDEX and supervisory physicians
3. provide administrative support to the MEDEX in the field re: logistics etc.,
4. assist MEDEX headquarters with a tool to test and improve the effectiveness of its training modules, to support the ongoing formal evaluation of the program and to monitor in-service problems,
5. support the in-service training of the MEDEX in the field,
6. to support communications among the MEDEX in the field to maintain team spirit and reduce sense of isolation,
7. improve the feedback to the communities from the regional or Georgetown hospital concerning hospitalized community members,
8. test the use of the system in support of activities, and in-service training of allied health personnel as well as of community health workers,
9. collect health care statistics for routine surveys as well as for epidemics etc.

UTILIZATION PLANNING

1) The communications systems and the services it provides will be designed as fully as possible to respond to the needs of the MEDEX in the field. However, the

addition of the ten two-way communications sites to the existing training, administration and evaluation load of MEDEX H.Q. could become an undue burden on the on-going operations for routine consultations. The system should be able to respond as fully as possible to any emergency situations, including arrangements for evacuations to advise on interim treatment measures. It is proposed to develop a consultative and administrative schedule which will satisfy all participants. The schedules could include fixed times and dates for consultations, including consultations between a single MEDEX and the supervisor, as well as group consultations, e.g. grand rounds in which all MEDEX listen and/or participate in consultations between colleagues with the supervisor. The last technique has shown elsewhere to be of considerable educational value.

The MEDEX in the field need support in administrative matters, such as ordering of supplies. In the absence of a direct two-way communications link to the Ministry of Health or the Pharmaceutical suppliers, MEDEX H.Q. will find itself in the role of an administrative and logistics interlocutor. Again, the potential amount of requests from the field may prove too heavy to be handled without prior planning. Procedures need to be developed which will make the handling of these matters as efficient as possible, for example, a short form could be developed identifying requests, action taken. This would facilitate reporting to the MEDEX on a routine basis.

2) The communications system will respond to the needs of MEDEX H.Q. such as providing feed-back on the effectiveness of training received, supporting the formal evaluation of the project and monitoring in-service problem of the MEDEX. MEDEX H.Q. will devise ways in which the two-way system can best support the activities in these areas.

They could, for example, include scheduled discussions with the MEDEX on a pre-determined basis.

3) The two-way communications system could be a valuable asset to the in-service training component of the MEDEX program, either as an instructional mode or to relay and discuss requirements. As a component of an overall training module it could reinforce new materials presented to the MEDEX in the in-service newsletter by organizing discussions around the topics. The system can also be used to respond to individual training in which supervisor and MEDEX discuss particular needs and set a course of action to satisfy these. Techniques to best use the two-way communications system for in-service training need to be developed as part of the pilot project.

4) The utilization plan should promote the communications among MEDEXES in the field for professional as well as social communications to maintain the team spirit and lessen the effects of isolation. These "radio meetings" could be initiated by asking different MEDEXES to tell about their latest experiences, or by charging a group of MEDEX to organize these services among themselves.

5) The communities in which MEDEX are located can directly profit from the radio link by, for example, receiving periodic progress reports on hospitalized members. Additional benefits to the large community will most likely evolve once the system is in operation. These could include discussions among various groups of allied health care personnel. The periodic use of the system by the community and allied health personnel may well contribute to fostering a team spirit among all involved and will be beneficial to the MEDEX program overall.

6) The system can be used when required to rapidly collect health care data for routine surveys as well as to combat the spreading of epidemics or infectious illnesses.

The development of the utilization plan will be based on discussions with all sectors concerned. Its implementation should be very flexible to ensure that ideas can be dropped or new techniques can be tested.

TRAINING

In order to operate a two-way radio system effectively all participants, i.e. the MEDEX, the MEDEX trainers, and administrators need to receive training in the following areas:

- Basic radio maintenance and requirements.
- Techniques of case presentations for consultations which may differ from face-to-face presentations.
- Procedures to communicate in a two-way radio system.
- Procedures to conduct and participiate in multiple point tele-conferences for administrative, consultative or training/educational matters. This would include techniques to keep people's interest in the conference, to solicit inputs from remote sites, to enccurage spontaneousness. Past experience has shown that such procedures are of extreme value to make effective use of multiple point tele-conferencing. Past experiences in educational uses of such systems, for example, indicate that the presentation of new materials should be broken into short sequences (5-10 mins.) with discussions interspersed.
- Keeping logs and records for the project monitoring and evaluation to encourage maximum compliance. A sample of logs will be filled in by the participants and difficulties discussed prior to their use in the field.

The training module will be developed with assistance of consultants and MEDEX to insure its appropriateness as part of the overall MEDEX training module.

EVALUATION

Since the experiences from the 10 site pilot projects will form the basis for the design of the radio system and its uses for the large system, project evaluation is of great importance. Logs and records of system performance, operational and maintenance problems as well as of the actual use of the system will form a first data base. Discussions and interviews with participants will provide an assessment of the effects of the communications system on the MEDEX program.

The evaluation of the pilot phase will be largely of formative nature. It will adapt experiences gained elsewhere to the requirements of the MEDEX program as well as develop new uses based on the MEDEX program requirements. The evaluation will be conducted by outside consultants, in close co-operation with MEDEX and with support from the University of Guyana.

IMPLEMENTATION

A co-ordinator will be required at MEDEX headquarters for the day-to-day tasks of organizing and scheduling the services provided and keeping track of systems performance, logs of usage of the system, etc.

The co-ordinator will be assisted in the initial planning phases and periodically during the trial period by outside consultants.

The following implementation plan is envisaged:

1. Pre-project planning:

    a. Identify primary and potential uses of the system on the basis of the experiences with the telephone network, the existing two-site link and discussions with MEDEX.

    b. Outline possible services, how they are best administered and

    c. Develop training modules and undertake training in Georgetown for group two, if possible, by simulation. On site, during installation for group one

d. Develop logs, data collection instruments and administrative forms. (Pretest in simulation).

e. Work out with GTC agreement and schedule for installation, maintenance and training.

f. Install and test system.

2. Project Phase:

a. Monitor services provided, iron-out short-comings.

b. Identify and develop new uses, services and communications techniques.

c. Collect feed-back from participants on regular basis.

d. Obtain reaction from allied health personnel and communities at large and identify ways in which system could benefit from these.

3. Recommendations:

Recommend a two-way communications system, a training module and guidelines for systems use for the larger MEDEX program in Guyana.

OUTPUTS

1. Guidelines for operational use of the radio system.

2. Guidelines for training modules.

3. Records of equipment performance, maintenance and associated costs.

4. Records of the services provided by the system.

5. Administrative guidelines for the co-ordination of the services provided.

6. Guidelines for staff requirements on the technical as well as service side.

7. Recommendations for co-operative arrangements between the health care delivery and tele-communications services sectors.

8. Recommendations for a communications training module to become part of the MEDEX training program.

9. Recommendations for the maintenance, operation and use of a two-way radio system to become a component of the MEDEX field operations manual.

PILOT PROJECT BUDGET

DS/ED FUNDED

1. Planning and Evaluation Support in Washington			
Communication Specialist	(0.5 pm)	2,000	
Training Specialist	(0.25 pm)	1,000	
Co-ordinator	(0.25 pm)	800	
Admin/Secretary	(1 pm)	1,200	
in Georgetown			
Communication Specialist	(0.5 pm)	2,000	
Engineering Consultant	(0.25 pm)	1,000	
Research/Evaluation Coordinator Local	(2 pm)	1,000	
Evaluation Assistant	(3 pm)	500	
Travel			
1 RT - each for 2 consultants & 500		1,000	
local travel consultants		800	
local travel local evaluators		600	
Per Diem			
@52 - 15 days		780	
2. Training - Development and Utilization of Training Module			
Training Specialist	(0.5 pm)	2,000	
Communication Specialist	(7 days)	1,250	
Engineering Consultant	(6 days)	1,072	
Other Direct Cost		250	
Travel - 3 RT each for three consultants		1,500	
Per Diem - @ 52 - 24 days		1,248	
	Total	20,000	20,000

Mission Funded

Equipment Procurement	19,175	
Installation & Operation	11,600	
Total	30,775	

PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS

(PAF Amendment No. 2)

PART II

ENTITY: DS Bureau

Project: Studies in Facilitating Learning: Communication Technology

PROJECT NUMBER: 931-1109

I hereby authorize additional AID grant funding in the amount of one hundred thirty eight thousand dollars ($138,000) for the Studies in Facilitating Learning project for the production of release prints of films, videotapes, and associated print materials produced under the basic project.

This will increase the total life of project cost from $2,377,000 to $2,515,000.

APPROVE _____

DISAPPROVE _____

DATE 5-22-79

Clearances:

DS/ED, CBlock _____ Date 5-11-79
DS/ED, RWSchmeding _____ Date 5/11/79
DS/PO, RSimpson _____ Date 5/22/79

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS PART I

1. TRANSACTION CODE: C (A = ADD, C = CHANGE, D = DELETE) | PAF
2. DOCUMENT CODE: 5
3. COUNTRY/ENTITY: DSB / Interregional
4. DOCUMENT REVISION NUMBER: 2
5. PROJECT NUMBER (7 digits): 931-1109
6. BUREAU/OFFICE: A. SYMBOL: DSB; B. CODE: [redacted]
7. PROJECT TITLE (Maximum 40 characters): Studies in Facilitating Learning
8. PROJECT APPROVAL DECISION: ACTION TAKEN: 10 (A = APPROVED, D = DISAPPROVED, DE = DEAUTHORIZED)
9. EST. PERIOD OF IMPLEMENTATION: YRS. 03 QTRS. -

10. APPROVED BUDGET AID APPROPRIATED FUNDS ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE C. GRANT	PRIMARY TECH. CODE D. LOAN	E. 1ST FY 77 F. GRANT	E. 1ST FY 77 G. LOAN	H. 2ND FY 78 I. GRANT	H. 2ND FY 78 J. LOAN	K. 3RD FY 79 L. GRANT	K. 3RD FY 79 M. LOAN
(1) EH	600	640		1606		491		138	
(2)						280			
(3)									
(4)									
TOTALS									

A. APPROPRIATION	N. 4TH FY ___ O. GRANT	N. 4TH FY ___ P. LOAN	Q. 5TH FY ___ R. GRANT	Q. 5TH FY ___ S. LOAN	LIFE OF PROJECT T. GRANT	LIFE OF PROJECT U. LOAN
(1) EH					2515	
(2)						
(3)						
(4)						
TOTALS						

11. PROJECT FUNDING AUTHORIZED (ENTER APPROPRIATE CODE(S): 1 = LIFE OF PROJECT, 2 = INCREMENTAL, LIFE OF PROJECT): A. GRANT: 2; B. LOAN:

C. PROJECT FUNDING AUTHORIZED THRU: FY 80

12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED ($000)

A. APPROPRIATION	B. ALLOTMENT REQUEST NO. ___ C. GRANT	B. ALLOTMENT REQUEST NO. ___ D. LOAN
(1)		
(2)		
(3)		
(4)		
TOTALS		

13. FUNDS RESERVED FOR ALLOTMENT

TYPED NAME (Chief, SER/FM/FSD)

SIGNATURE

DATE

14. SOURCE/ORIGIN OF GOODS AND SERVICES: [X] 000 [ ] 941 [ ] LOCAL [ ] OTHER ___

15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED

Added funding for field dissemination of films, videotapes, and print materials produced under this project, demonstrating applications of communications technology in various development projects worldwide.

FOR PPC/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE MM DD YY	18. ACTION REFERENCE (Optional)	ACTION REFERENCE DATE MM DD YY

AID 1330-6 (7-76)

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : DAA/DS, Stephen Joseph

DATE: April 19, 1979

THRU : DS/PO, Robert Simpson

FROM : DS/ED, R. W. Schmeding

SUBJECT: Increase in Funding Authorization (PAF) for Dissemination of Communication Technology Films, Videotapes, and Printed Materials.

Under Project 931-1109 Studies in Facilitating Learning: Communication Technology, three contracts were awarded, namely, to Stanford University for policy studies and training (1472), to the Academy for Educational Development (AED) for information materials, seminars, and project development (1473), and to Hearst Metrotone for two films(1475).

Training films were produced by AED showing applications of communication technology in the Nicaragua Radio Mathematics Project, Health and Communications Projects, together with videotapes covering the Tunisian Health Campaign and the Philippine Masagana 99 Agriculture Project. Hearst produced films covering the Basic Village Education Project in Guatemala and the Pakistan Adult Literacy TV Program.

The purpose of this PAF amendment is to provide for translations of films, videotapes, and associated printed materials into Spanish, French, and Arabic; and to ask that the contractor who produced the materials maintain continuity and quality control. In addition the amendment provides for the production of release prints, videotapes of all films, and print materials for an extensive program of dissemination to field seminars.

The proposed budget of $138,000 will be composed of the following: $83,000 under Contract 1473 with AED for films produced under that contract; and $55,000 for films produced under Contract 1475 with Hearst to be translated, videotaped, and booklets written by AED under 1473.

This amendment is within the approved Life of Project. Total cost of project is increased from $2,377,000 to $2,515,000.