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AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

1. TRANSACTION CODE: [ ] A ADD, C CHANGE, D DELETE

PP

2. DOCUMENT CODE: 3 33p

3. COUNTRY ENTITY: TAB Worldwide -- Multi-country

4. DOCUMENT REVISION NUMBER: [ ]

5. PROJECT NUMBER (7 digits): 931-1109

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7. PROJECT TITLE (Maximum 40 characters): Studies in Facilitating Learning: Comm. Tech.

8. ESTIMATED FY OF PROJECT COMPLETION: FY 80

9. ESTIMATED DATE OF OBLIGATION: A. INITIAL FY 77; B. QUARTER 4 (Enter 1, 2, 3, or 4); C. FINAL FY 78

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	1,450		1,450	2,150		2,150
(GRANT)	( )	( )	( )	( )	( )	( )
(LOAN)	( )	( )	( )	( )	( )	( )
OTHER U.S. 1.						
OTHER U.S. 2.						
HOST COUNTRY						
OTHER DONOR(S)						
TOTALS	1,450		1,450	2,150		2,150

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 77 F. GRANT	E. 1ST FY 77 G. LOAN	H. 2ND FY 78 I. GRANT	H. 2ND FY 78 J. LOAN	K. 3RD FY ___ L. GRANT	K. 3RD FY ___ M. LOAN
(1)	600	640		1,450		700			
(2)									
(3)									
(4)									
TOTALS				1,450		700			

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)						
(2)						
(3)						
(4)						
TOTALS						

12. IN-DEPTH EVALUATION SCHEDULED: MM [ ] YY [ ]

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: Robert W. Schmeding

TITLE: Director, TA/EHR

DATE SIGNED: MM 04 DD 21 YY 77

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

AID 1330-4 (3-76)

APR 12 1977

Studies in Facilitating Learning: Communication Technology

A. Recommendations

It is recommended that $1,450,000 be allocated to carry out this project in FY 77 and $700,000 in FY 78. The FY 77 budget of $1,450,000 includes $250,000 from another proposed TA/EHR project entitled "Studies of Communication in Rural Development" which will now be considered a component of this project.

B. Summary Description

The project is the product of two separate, but related, streams of experience. The first is connected with the growing realization within the Agency that health, agriculture, nutrition, family planning, and other programs often have significant education and training components within them which can benefit from the results of R&D in educational and communication technology. The awareness of the potential value of communication components in development programs led to recognition that communication was an under-utilized resource and that we really did not know enough to make good use of it. As a result, TA/EHR, since the early 1970s, has focussed its R and D program in educational technology and communication on improving the effectiveness of the learning experience and increasing access to learning opportunities across all development sectors. This has generated an increasing volume of experimental and operational applications of communication to development. The FY 78 Congressional Presentation reveals more than two dozen projects, 60 percent of which are funded by Regional Bureaus, which plan to make use of educational and communication technology.

The R and D activities in development communication have produced a substantial body of knowledge about how best to take advantage of communications potential benefits. Many of the experimental efforts have matured into effective projects. The knowledge and experience that are now available can be applied on a large scale to the development of operational applications. This project is a logical extension of previous Agency activities.

The second stream influencing the development of this project derives from the May 1976 address of the Secretary of State made in Nairobi at the UNCTAD IV conference in which he reaffirmed the U.S. offer to share advanced technologies with developing countries. A.I.D. immediately followed this offer with a three-month demonstration program by satellite for 27 countries in three continents. The demonstration included a film, and subsequent discussion with national leaders, on the application of communications to development problems in health, education, and agriculture. Applications discussed ranged from local agricultural information systems using radio to national non-formal education programs using TV and satellites. One impetus for the whole demonstration program

came from the year-long India Satellite Instructional Television Experiment (SITE), which made use of the ATS-6 satellite loaned to India for one year by the United States (1976). It was the movement of the ATS-6 back to this hemisphere that made possible the three-month demonstration program.

The promises made at Nairobi and the program of demonstrations greatly increased the interest level among LDCs in using communications to support their development activities. That interest has already resulted in a number of requests for assistance, and more are anticipated. At present, there is no appropriate mechanism for adequately responding to the type and number of requests that have been generated. In order to fulfill its commitments, the Agency needs to create such a mechanism; this project will fill that role.

The purpose of the project is to assist in the application of knowledge now available, especially in the areas of software and utilization, to projects that apply communication technology to development problems. The project will create a resource, the software centers, that will build the capacity of LDCs to make effective use of communication for development.

This project, then, follows up the three-month communication technology demonstration and attempts to be responsive to the demands for assistance generated by it. Moreover, it is a major next step in the Agency's efforts to apply the results of successful R&D activities, building both on TAB and Regional Bureau/Mission experiences with various media-related projects, and encompassing a wide range of support activities conducive to improved design and execution of field projects making use of the educational and communication technology.

In order to capitalize on this initiative and to move forward the work in this area, the Agency has outlined a broad-based multi-year program involving each of the Regional Bureaus and TAB. At the present time the funding allocations have been distributed in the following manner:

(in thousands of $)

	FY 77	FY 78	FY 79 (and beyond) (tentative)
TAB Planning Studies	1,450	700	---
* TAB support of applications		1,700	---
Africa Bureau		2,125	4,375
LA Bureau		1,000	4,000
Asia Bureau		125	8,310
NENA Bureau		200	---
TOTAL	1,450	5,850	16,685

* Separate PP will be submitted for this project.

TAB's role in this effort consists of: (1) providing the overall framework and design for the entire program, (2) marshalling experts and consultants for the field activities, assisting Missions and LDC officials in initial design, planning and demonstration activities, and supplying current information about the state-of-the-art of educational and communication technology to the field.

The objective of the present project, then, is to take the first steps of planning, design, training and small demonstrations in the use of educational and communication technology in order to fulfill information and technical assistance requests from the field as well as to lay a solid foundation for the larger operational phase to follow in FY 78 and beyond. (Some interim planning has started, under previously available field support funds.)

To accomplish this purpose, this project will undertake activities that will assist developing countries in planning and designing specific projects for implementation in FY 78 and subsequent years. These projects are anticipated to cover a broad range of development objectives, not only in formal and non-formal education, but also in serving some of the learning and information needs of programs in rural health, agriculture, rural development, and other sectors. The communications media packages considered will also cover a broad range, from very localized radio and print information systems to, when appropriate, large-scale systems that may involve satellite linkages. For all cases, the project design work will encompass the total system of "software" and "hardware" delivery, with special emphasis on such aspects as management, instructional design, training, attention to sectoral objectives, and responsiveness to the needs and interests of the target audience. It will be the responsibility of TAB through this project to assure that a broad participatory base of U.S. and LDC expertise is established and that a cumulative impact is achieved by organizing what is learned from each activity so that information is shared and used.

The project has five major components. The specific number and magnitude of activities within these components will be further developed as requests from the field continue to define requirements. It is already clear that quite a number of country studies will be required (eight have already been requested); that information and training activities are essential to all that follows; and that we will proceed with the planning of the establishment of "software development centers" as the cornerstone of this program. Funding for the "software development centers" has already been set aside in the Regional Bureaus.

The following is a list of project components with a brief description of each:

1. <u>Communication Planning and Design Activities.</u>

A considerable amount of effort is anticipated in the area of communication planning and design activities. These efforts will be both in

response to requests from the field and to needs and gaps in our knowledge perceived by TAB/EHR and will be distributed over a range of sectors, i.e., education, agriculture, health, and nutrition. At this time it is expected that each year will involve two major activities requiring 30 man months each and four smaller activities involving six man months each. (FY 77 — $500,000 and FY 78 — $500,000.)

The activities will be of four major types:

a. Assistance in project design.

b. Addition of communication components to sector assessments.

c. Exploratory planning.

d. Conduct of comprehensive communication sector assessments.

Examples of the kinds of activity that will be required include: expert consultation in needs assessment, project design, evaluation, and instructional materials design and production; small demonstrations of different applications of communication technology; studies of communication infrastructure already present or assessment of future needs; analysis of software requirements; studies of regional communication capacities and needs; and compilation of information about methods used in different sectors by AID to implement communication components of development programs.

2. Training -- approximately thirty people for short-term training in each of project's two years and ten people for long-term training beginning in the second year of the contract. (FY 77 -- $75,000 and FY 78 — $275,000). The purpose of this training is to prepare LDC planners to participate in the development and implementation of activities generated by this project, most especially in the development of the "software centers" described below.

3. Seminars -- three in-country seminars per year of the project in LDCs to discuss the planning and application of communication technology. Again, these seminars will most often be closely related to preparatory work for planning and designing the software centers. (FY 77 -- $150,000; FY 78 -- $150,000).

4. Information Series -- information packages, i.e., short films, brochures and audio/video cassettes explaining A.I.D.'s program in communication technology and to demonstrate ongoing projects in LDCs which utilize communication technology. The intended audience for the information packages would be LDC decision makers and USAID officials who contemplate the use of communication technology as part of their development programs. These packages will be used as part of each of the project components outlined in this section. (FY 77 $150,000; FY 78 $50,000).

5. Software Center Planning -- The development and implementation of three software centers will constitute a major component of the total Agency effort in the area of communications technology over the next several years. Funds for their establishment have already been set aside in the regional bureau programs starting in FY 78. Therefore, TA/EHR, in collaboration with the regional bureaus and in participation with USAID mission and LDC officials, will allocate a substantial portion of its efforts in the next two years to the planning of the first two centers. (Planning funds under this PP: FY 77 -- $200,000; FY 78 -- $100,000, which will produce plans for two centers.)

The rationale for the priority of the centers is explained elsewhere in the paper. It is important to point out here some of the questions that will have to be answered by TA/EHR's planning studies under this project before development of the centers can begin:

a. Should the centers be regional or national in make up? Or some combination of the two?

b. Should the centers be added onto an existing national or regional organization or developed independently?

c. Should each center have a functional focus, e.g., agricultural information projects or keep a regional focus on all development communication needs?

d. What should be the relative emphasis within the center on training, production, technical assistance?

e. How much should the centers become involved in research and development?

f. What type of LDC participants should be involved in the center? Policy makers? Managers? Technicians?

g. If the centers are regional, how will they coordinate with participating countries to ensure that the centers' activities are relevant to each's problems?

h. How will the centers link to each other and to other similar centers in the U.S. and elsewhere?

i. Should the centers relate to not only the functional ministries of education, health, etc. but also to national Posts and Telegraph agencies?

j. What will be the funding arrangements by AID/W, Missions and host countries for initial costs, recurrent costs?

k. What mechanism and timetable should be worked out for the software centers to become self-supporting?

Again, this list is not exhaustive, but it does show that the planning studies for the software centers will have to find answers to questions of geographical composition, focus of activities, type of participants, participation by host countries, among others.

The five components: communication planning and design
training
seminars
information series
software center planning

all relate directly to overall goal of the project by supplying the resources to respond to accelerated field requests and by providing the critical planning expertise for the major Agency effort of establishing software centers. Some of the field requests will relate directly to the development of the centers through studies, training or seminars for that specific purpose. Results of those activities which are more country specific in regions not contemplated for a center will be fed into the software planning and design process where appropriate.

C. Project Issues

The following are comments or issues identified by TA/EHR between the issuance of the PID and the completion of the satellite demonstration. They also represent the opinions of both Mission and host country officials as well as representatives of other international organizations.

1. Is there any evidence to indicate interest on the part of LDCs in the project?

Since the conclusion of the satellite demonstration in October 1976, requests for TA/EHR assistance in planning for communication technologies have been received from ROCAP, Peru, Jamaica, Nicagagua, the Philippines, Liberia, Sierra Leone, The Central African Empire, Cameroon, The Economic Commission for Africa and Qatar. Two specific examples may serve to give the flavor of the variety of the requests.

In Peru, the Ministry of Education is planning for the use of radio and TV to spread its ongoing program in early childhood education to rural families. As a first step, the Ministry of Education has requested A.I.D. assistance in the planning of a seminar/workshop in April 1977 to help make preliminary decisions as to project location, manpower requirements and media usage.

In the Central African Empire, the A.I.D. Regional Development Office has requested a consultant team for assistance in the development of a PID for a project using radio to support formal and non-formal education.

2. Did the AIDSAT demonstration lead LDCs to the expectation that the U.S. follow-on initiative would be exclusively focused on satellite technology alone?

In view of the emphasis on advanced technologies in the AIDSAT demonstrations, and as evidenced by the types of questions raised by LDC officials during the live, two-way exchanges segment of the demonstrations, it appears that the U.S. initiative in communication technology may have been too narrowly interpreted to reflect a U.S. interest in satellite technology solely. Some of the follow-on requests already received do, indeed, have implications for possible satellite use. Conversely, other requests are primarily concerned with applications of more conventional, or land-based media systems. Still others are interested in exploring the use of computerized information storage and retrieval, which could employ both terrestrial and satellite delivery systems. The activities of this project will be consistent with past TA/EHR efforts in this area; namely, to design the most cost-effective delivery methods for each particular country and learning need, whether using satellite or more conventional means.

3. Is the project consistent with long-range U.S. policies and with their application by TA/EHR?

Major characteristics of long-range U.S. policies toward development have been: emphasis on reaching rural populations; increased access to and participation in learning experiences by the poorest segments of the population; integration of development efforts in various sectors; and improvement of the effectiveness of learning experiences. The utility of integrating the use of communication technology into development activities to achieve these objectives has been conclusively demonstrated by such projects as the Basic Village Education Project in Guatemala, the El Salvador instructional television system, India's Satellite Instructional Television Experiment, and the radio-based health campaigns in Tanzania. TA/EHR has been involved in many of these projects; the efforts proposed for this activity follow very directly from TA/EHR's previous work.

Part II - Project Background and Detailed Description

A. Background

At the heart of this proposal in education and human resources is a far reaching and worldwide effort to adapt and develop the capacity of communication technology to address educational needs of the poorest majorities in LDCs.

If education were only an end in itself, it might be possible to be less concerned about growing numbers of adult illiterates, high rates of wastage in formal school systems (dropouts and repeaters), and growing

numbers of educated unemployed in the less developed countries of the world. However, it is precisely education's integral relationship to the development process that casts these statistics in an ominous light. Education plays a major role in the processes of (1) raising agricultural productivity, (2) adapting and adopting new and improved technology, (3) improving health and nutritional status, and (4) reducing family size. The important question is how to manipulate the educational processes to achieve the conditions for growth and development.

In the First Development Decade, the approach in education emphasized quantitative expansion of school facilities and teachers. The problem was viewed as one related to the absence of traditional educational facilities. However, by the Second Development Decade, there was growing concern about the qualitative aspects of education and the need to think beyond the formal system of education. Furthermore, there was a growing recognition that education must serve the needs and interests of the majority of the people in LDCs who reside in rural areas and whose livelihoods are intimately interwoven with agriculture -- a situation unlikely to change in the near future. Recognition of the rural sector is reflected in the 1973 amendments to the Foreign Assistance Act which directed A.I.D. to focus more directly on the needs of the world's poorest people.

During the 1960s, approximately one half of A.I.D.'s expenditures on education went for the development of institutions of higher education. This effort reflected the expressed needs of LDC governments and the generally held view that the absence of professional and high level trained manpower was one of the main impediments to development. Some 100 LDC universities, professional schools, and research institutions were developed as a direct result of U.S. development funds and technical and professional manpower. Many of these institutions were directed toward providing professional trained agriculturalists. Besides this emphasis, approximately one fifth of A.I.D.'s educational expenditures were devoted to quantitative expansion and qualitative improvement of primary and secondary educational facilities. A.I.D. was involved in curriculum reform, development of learning materials, teacher training, and improvements in management and administrative systems for education. During this time obligations for education reached a peak of $191 million in 1963 and averaged around $120 million for the decade.

In the Second Development Decade, A.I.D.'s emphasis in education underwent a dramatic shift, partly in response to the "new directions" from Congress and the growing recognition within A.I.D. and the development community of the limitations of the earlier strategy. Since the early 1970s, increased attention has been given to alternative forms of education and the utilization of mass media technology to extend the outreach of formal and nonformal educational systems. A.I.D.'s emphasis in formal education has shifted toward primary education, particularly rural primary education. Nonformal programs are increasingly being relied upon to broaden the skills and knowledge of out-of-school adults and young people. Of primary concern is the critical role of women in development.

A further element is the growing demand on the part of LDC populations for social services including education. The depressing, well-known equation of increased population and demand coupled with the financial and human incapacities in LDCs to meet them, would point to the wider use of technology that can reach more people, faster without raising costs significantly.

That there is growing interest on the part of LDC decision makers in the application of communication technology was made even more clear as a result of the ATS-6 demonstration program. Representatives of TA/EHR's educational technology group and consultants were present at the demonstrations as resource persons to discuss technical questions and potential follow-on activities. They received first-hand impressions of the impact and challenges generated by the demonstrations. In their reports, the following observations were made:

1. The reactions of government officials during and after the demonstrations indicated serious interest in the U.S. initiatives and in the potential benefits of communication technology to their development efforts. In a number of cases, the head of state personally verified his country's commitment to the application of communication technology as a tool to accelerate development.

2. Aside from specialized technical experts, few LDC planning officials have a clear grasp of the principles of systematic design of communication strategies for development purposes.

3. Even where officials were more fully aware of the role of communication technology for development, interest tended to focus on equipment and technical training, rather than on planning and software development. In view of the recent numbers of requests for TA/EHR assistance and already completed field investigations, i.e., Peru and Qatar, this observation has been reinforced.

4. LDC officials were unclear about the specifics of possible U.S. support.

These field observations seem to be consistent with the findings of communication researchers and field experience to date. These indicate that many projects in communication technology fail because the technology itself is often viewed as a solution before specific identification of sector by sector need is made.

This often leads to emphasis upon hardware, i.e., broadcast equipment, as priority items rather than on the more difficult steps of learning and information needs assessment, targeting of intended audience, project design, research and evaluation as well as required feedback systems. Though this appears to be an obvious and logical procedure, the facts sadly support the contrary -- projects are often poorly planned and

executed because hardware decisions, which are easier to make, are indeed made before the more difficult software decisions are tackled.

These considerations and observations indicate that an opportunity exists to respond to LDC interests and to move forward to increasingly significant applications.

Relation to TA/EHR Program. Over the past eight years, TA/EHR has been involved in a variety of R&D programs on the use of media-related projects. These include the use of: television for in-school instruction (El Salvador, Mexico); radio for in-school instruction (Nicaragua, Mexico); radio for relaying information in agriculture, health, and nutrition projects (Guatemala, Philippines, Nicaragua, Tunisia). Several policy studies and evaluation studies regarding the use of communication satellites have been completed. A major international conference this past summer, held at Stanford University, pulled together some of the policy implications from this work, as well as what others have been doing in the field.

At the present time, it is clear that this R&D experience has matured to the point that with confidence we can plan operational systems that will be effective within the constraints of the poor, rural populations of many LDCs.

B. Detailed Description

1. Project Goal -- The higher level goal of this project is to increase access to relevant and cost-effective learning and information systems through increased LDC capacity to plan and utilize appropriate communication technology.

2. Project Purpose -- The purpose of the project is two fold: (1) to assist in the effective application of existing knowledge and experience to projects that make use of communication technology for development; and (2) to create a resource, the software centers, that will offer assistance in the short-term and build the capacity in LDCs for independent, long-term activity in these areas.

3. Project Objectives -- The objectives of this project are to assist LDC and Mission officials by planning, design, training and small demonstrations in the use of educational and communication technology and to accomplish the initial planning for two major software centers. For this purpose, TA/EHR will have available during this two year project technical specialists to respond to Mission responses from host countries related to development communications and to conduct specific planning efforts for designing the development communication centers.

End of Project Indicators are

a. Demonstration projects in LDCs have integrated the use of educational and communication technology into their designs.

b. LDC personnel trained in educational and communication planning, instructional materials design, production, evaluation methodologies and other components of the system are working in their countries.

c. Joint planning begun to use communication technology in projects or as part of the software center.

d. USAID's and host country officials aware of AID's program in educational and communication technology.

e. Plans outlined for the first two software centers including location, composition, types and priorities of activities, types of participants, procedures for participation, and funding arrangements as well as arrangements for beginning the centers.

4. Project Outputs

a. Designs and studies for the use of communication technology in development projects.

b. LDC and U.S training activities in the various components of educational and communication technology.

c. Seminars participated in by LDC policy makers, managers, and technicians.

d. Information materials prepared and distributed.

e. Detailed plans for and studies related to development of first two software centers.

5. Project Inputs

The planned inputs for the project will consist of technical assistance for the planned communication studies and the training component under contract with leading U.S. institutions and individual specialists, i.e., Indiana University, Syracuse University, Stanfords's Institute for Communications Research, Florida State University, MIT, and Academy for Educational Development. Teams will be recruited and, upon request, sent to LDCs to assist in the planning for the demonstrations, projects, software centers, seminars and training.

In addition, they will undertake to assist LDCs in policy studies dealing with the long-range planning requirements leading to the application of communication technologies.

Budget Outline
000 of dollars

		1st Year	2nd Year
1.	Communication Planning and Design Activities ($200 major study x 2) ($25 smaller study x 4)	$500	$500
2.	Training		
	short-term ($2.5 x 30 people)	$ 75	$ 75
	long-term ($10 x 20 people)		$200
3.	Seminars ($50 apiece)	$150	$150
4.	Information Services	$150	$ 50
5.	Software Center Planning (2 centers)	$200	$100
	TOTAL	$1,075	$1,075

This budget outline is according to anticipated expenditures and not fiscal year obligations.

Part III - Project Analysis

A. Technical Analysis

Many development projects require that the small farmer and his family acquire new knowledge and skills. Others require training or on-the-job support for para-professionals who work in health, agriculture or education. Development of such projects may call for specialized planning assistance in the field of communication technology.

Such programs may focus upon needs in all development sectors including agriculture, health, nutrition and both formal and non-formal education. The element common to these sectors can be the use of communication technology, including software, i.e., programming and materials to supplement, extend and improve systems intended to reach and involve diverse populations in the development process.

Several communications-based projects listed below illustrate the range of implications for possible future projects. While two of them used communication satellites, the majority have relied upon simpler ground-based systems.

Objective	Hardware	Software	Results
To increase the quality of local health delivery by community para-professionals in Alaska.	Creation of satellite radio, television and computer linkages.	Radio and visual consultations between primary health care workers and trained doctors.	Successful remote diagnosis and monitoring of patients coupled with onsite treatment in remote clinics.
To reach Tanzania's rural population with basic information about health; to stimulate discussion and community action by rural study groups.	Use of existing radio equipment and printing press.	Weekly 20 minute radio programs teaching about health through lecture, drama, and discussion. Accompanying printed text materials for participants, and study guides for group leaders.	Several hundred thousand latrines built; substantial community action on health problems.

Objective	Hardware	Software	Results
To correct improper health and nutrition behaviors of housewives in 3 countries (Ecuador, Nicaragua, Philippines).	Use of existing basic radio production equipment.	Short radio spots using drama to convey basic information about health and nutrition.	Reaching up to 25% of the nations' housewives with health/nutrition information. Change in attitudes knowledge and behaviors regarding health an nutrition.
To increase the number and quality of ninth grade graduates from El Salvador's educational system.	Black and white groundbased television production, transmission, and reception equipment.	Twenty minute "tele-lessions" in subject areas associated with retrained classroom teachers, written student & teacher guides, & new curricula.	Larger numbers of ninth grade graduates performing at higher achievement levels.
To compensate for the limited training of Nicaraguan primary school teachers in mathematics. To improve the low student interest and performance in mathematics. To develop new methods for radio instruction through R&D.	Use of existing land-based radio transmitters and receivers.	Radio programs consisting of short modules teaching mathematical concepts through incorporation of frequent responses by classroom listeners.	Increased achievement in mathematics Development of new programmed instruction techniques for radio.
To experiment with alternate ways to increase low yields of untrained small farmers in two regions of Guatemala.	Low-wattage radio transmitters for localized broadcasting; simple AV production equipment.	Localized programming with music, gossip, and agricultural information. Use of various formats: lecture, drama, interview. Strong formative evaluation in production, based on listeners' correspondence.	Changes in attitud knowledge and production.

Objective	Hardware	Software	Results
To communicate information about agriculture, health, and family planning to rural audiences in India. To test the operational and educational feasibility of applying satellite broadcast technology to India's rural development.	Use of the ATS-6 experimental satellite made available by the U.S.; established new television production facilities; local production and distribution of black and white television receivers and appropriate community antennas.	Programs for adults on agriculture, health, family planning; use of various formats; drama, music, and lectures. Programs for schools; programs for training of teachers and of agricultural workers.	Involvement of audiences in 2,300 experimental village in six regions of India. Evaluation results regarding levels of interest and adult learning are forthcoming; clear gains from some school programs; excellent success in administration of large-scale communications system in rural India.

Applications of Communication Technology

As evident from the above, many applications of communication technology function without expensive or complicated equipment. In many instances radio and telephone can be extended into rural areas to support development efforts. One of the major goals of this project will be to increase the development usefulness of these low-cost applications.

At the same time, a new generation of high-powered communication satellites may offer new solutions to communication problems relating to the needs of managers, paraprofessionals, outreach workers, and the rural poor themselves. Capabilities for providing communication services to remote rural areas have increased greatly, and costs have decreased. As the new high-powered satellite services become available, inexpensive local ground stations will allow for television and radio broadcasts, data transmission and telephone linkages to rural market towns at roughly the same cost of providing these services to major urban centers. This represents a major change in the economics of communication service, since ground systems tend to favor urban centers rather than rural populations.

In most cases, projects will not initially involve satellites. Much can be accomplished with conventional radio and television, and these often have the advantage of local origination. Looking toward the future, however, many less developed countries must consider satellite communications either at the national level or as participants in regional undertakings, as one of the options available to them for the set of development problems they confront. Many such countries are being approached by

competing hardware vendors, who do not emphasize systems appropriate in cost and design for rural development objectives and who have little expertise in the area of communication software as described above. However, if these countries have access to impartial expert advice, it can be assumed that manufacturers will respond to well-developed system specifications.

Software

Although equipment considerations are important, the major obstruction to effective communication systems often lies in the content and presentation of programs or messages. Software development is the set of processes whereby messages are planned, produced, evaluated and integrated in a total system. The importance and cost of software development and utilization are often underestimated in project planning. While greater access to media can increase outreach to remote groups, only very limited returns in terms of behavior change can be expected unless effective software is available.

Environmental Statement

Since this project is essentially an institution building project, no adverse physical environmental effects are foreseen. If physical infrastructure is found to be necessary to implementing programs, planning studies will address environmental impact.

B. Financial Plan and Management Arrangements

The total cost of this project will be $2,150,000 over a two year period. $1,450,000 will be allocated in FY 77 and $700,000 in FY 78.

TA/EHR will attempt to contract with one management firm for administration of all, or at least a major portion of this project. This primary contractor will then have the responsibility for sub-contracting with appropriate universities, private firms or individuals for specific activities. The primary contractor will also have the responsibility for providing the "memory bank" for the various inputs from different components of the project. This is an especially important function for ensuring that the field support aspects of this project feed into the software center planning.

A committee composed of appropriate TAB and regional bureau representatives and technical experts from outside the Agency will meet quarterly to review progress of the project.

C. Social Analysis

The majority of LDC populations are severely deprived of services, information, and skills directly related to the quality of their life

as reflected in literacy, educational opportunities, agricultural productivity, good health, adequate nutrition, and control of family size. This poor majority is typically dispersed throughout varied rural settings with inadequate national service infrastructures and insufficient local resources to meet their basic needs. They are also located in densely populated urban areas, equally out of touch with services and resources.

Experiences with the use of communication technology have demonstrated that these isolated populations can be reached with relevant information. Women and the landless, especially among isolated groups, are usually least well served by social services. Communication technology does a relatively more effective job at reaching these subgroups than any other approach.

This information coupled with adequate material resources did have an impact on India's rural population involved in the SITE project, as one project example. The degree of the impact and its lasting effect is still being studied, but it is clear that a modern communication technology rather than discriminating against the poor majority actually works in their favor.

D. Role of Women

Although specific projects eventually implemented under the overall Agency effort in this area cannot be described yet, it is clear that the planning and design studies under this project will concentrate on involving and effecting change among isolated groups. Every effort will be made to assure explicit consideration of this fact when plans, designs and training are carried out during the next two years.

On the other hand, there is no way prior to undertaking the activities proposed here to guarantee that the poor majority, including its poorest stratum, both sexes, and all cultural subgroups within given populations, will benefit sufficiently or equitably from the proposed activities. It can only be argued that communication technologies have been and can be used to this end and that the type of planning and training activities proposed are the surest way to facilitate applications of technology which can realize this goal.

E. Economic Analysis

The several components of this project are judged to be the most cost-effective means for filling current and expected demands for technical assistance and laying a foundation for the larger operational phase scheduled for FY 78 and beyond.

The Communication Planning and Design Activities will bring to bear a range of consultants and expert resources for project development over all sectors. Emphasis will be on identifying the specific talent required for a particular design need on a case by case basis.

The obvious alternative to a TAB-directed planning and design activity is to place responsibility for this set of formative activities in the Regional Bureaus. The latter do not have technically-trained and experienced specialists presently on board to conduct such an operation, and the more cost-effective solution is to place responsibility for such activities where there is an established program having Agency-wide perspective to coordinate design and planning teams in an effective and economical fashion.

Training and Seminars. Here the major consideration is the location of such activities. For a number of specialties, the U.S is obviously the best and most economical location. In order to operate the software centers in an effective manner, it will be necessary to train some professionals to the M.A. and even Ph.D. levels. When it appears feasible, short-term training will take place in the host country. Seminars will most likely take place in connection with the software center planning and, therefore, occur in a developing country.

Information Series. From a cost standpoint, the basic question is which methodology is best to provide information about A.I.D.'s educational and communication technology program to people who by definition have great demands upon their time. What is judged to be best is information presented with the help of learning technologies, so that the content of the message and the means of its presentation complement one another. The non-traditional delivery systems to be made use of will serve to reinforce the concepts presented in the message; namely, that different educational and human resources development needs of LDCs can be attacked with more than traditional approaches, and ought to be. The methodology to be employed will also take the message to the consumers (LDC decision makers and USAID officers), a less-costly alternative to organizing seminars and conferences and paying travel expenses for this purpose. Finally, the various elements of the information series can of course be used many times, thus reducing their overall cost and increasing their attractiveness as the best means for the information dissemination felt to be needed.

Software Center Planning. The same considerations that underlay the decision to place the Communications Planning and Design Activities in TAB apply to the Software Center Planning component. Thus, the instructional and communication technology specialists available in TAB will take the lead in marshalling the expertise and technical talent required to establish the form and organization of these centers, again

with emphasis being on the effectiveness level of the cost-effectiveness equation. The possibility of economies of scale applications is real; attempts will be made to bring talent to bear on a number of related assignments with respect both to the Communications Planning and Design Activities and the Software Center Planning components. In its management of the total set of activities envisaged under this project, TA/EHR should be able to effect greater economies in the use of the presently scarce talent available who are knowledgeable in applications of communication technology, than would be the case were this initial planning assigned to the Regional Bureaus directly.

Implementation Arrangements

Necessary pre-implementation actions:

PP submitted to R&DC	March 1977
Project authorization	April 1977
Contractors selected	May 1977

Implementation actions:

I. Develop strategies and content of:

- Communication Planning Activities
- Training Programs
- Seminars
- Information Services
- Software Center Planning Studies

II. Action steps for each part of the project:

A. Planning and Design Activities

1. Integrate efforts with previous contacts by TA/EHR during past 6 months, i.e., Qatar, Peru, ROCAP, Jamaica, CAE.

2. Coordinate information to missions and LDCs about studies through TA/EHR and Regional Bureaus.

3. Coordinate activities with appropriate AID/W Regional Bureaus.

4. Conduct initial exploratory visits to LDCs requesting studies or small demonstrations.

5. Identify appropriate personnel to conduct each activity.

6. Implement activity.

7. Maintain contact with each country after each activity.

8. Disseminate findings to appropriate regional bureau technical offices.

9. Maintain memory bank of results for integration with other efforts.

B. Training -- Short and long-term programs in the U.S.

1. Coordinate efforts with AID/W international training office (SER/IT) and 211(d) grantees.

2. Assess and analyze training opportunities.

3. Identify possible gaps and recommend programs that could be developed.

4. Task analyze the skill requirements of the trainee to ensure best fit of program.

5. Provide information on training programs to missions, regional bureaus and LDCs.

6. Coordinate requests for training from missions and LDCs especially in relation to studies and seminars conducted as part of the AIDSAT follow-up.

7. Assist in the selection of candidates.

8. Recommend programs for each candidate.

9. Develop short-term training programs for specific skills.

10. Conduct and manage short-term training programs.

11. Follow-up with trainees to promote proper placement and to obtain feedback on training program.

C. Seminars -- short-term programs in the LDCs

1. Integrate efforts with previous contacts by TA/EHR during past 6 months.

2. Design and develop seminar framework and materials.

3. Assist in site selection for seminars with TA/EHR and appropriate regional bureau.

4. Assist in participant selection with TA/EHR and appropriate regional bureau.

5. Select and arrange for participation of seminar leaders.

6. Arrange and coordinate the logistics, scheduling, etc. of the seminar.

7. Conduct the seminars.

8. Write up the results of each seminar and disseminate the reports to the appropriate missions and regional bureaus.

9. Follow up studies of each seminar for integration into project efforts.

E. Information Services

1. Prepare a series of short films using both existing footage from AIDSAT communication film and new footage where appropriate.

2. Continue the writing and dissemination of periodic bulletins for the field explaining progress of activities under this project. (This activity already begun.)

3. Develop other A/V materials, when appropriate, to provide USAID and LDC officials with state-of-the-art information about communication technology applications.

F. Software Center Planning

1. Coordinate the work of the on-going task forces working on background for software center and relate to activities of existing regional organizations.

2. Plan with both Africa and Asia regional bureaus for most appropriate sites. Initial planning meetings have already been held with the Asia and Africa Bureaus to integrate their programming with follow-on activities.

3. With TA/EHR and appropriate regional bureau staff and conduct initial site selection visits in coordination with appropriate regional bureau.

4. Coordinate planning with other regional bureaus.

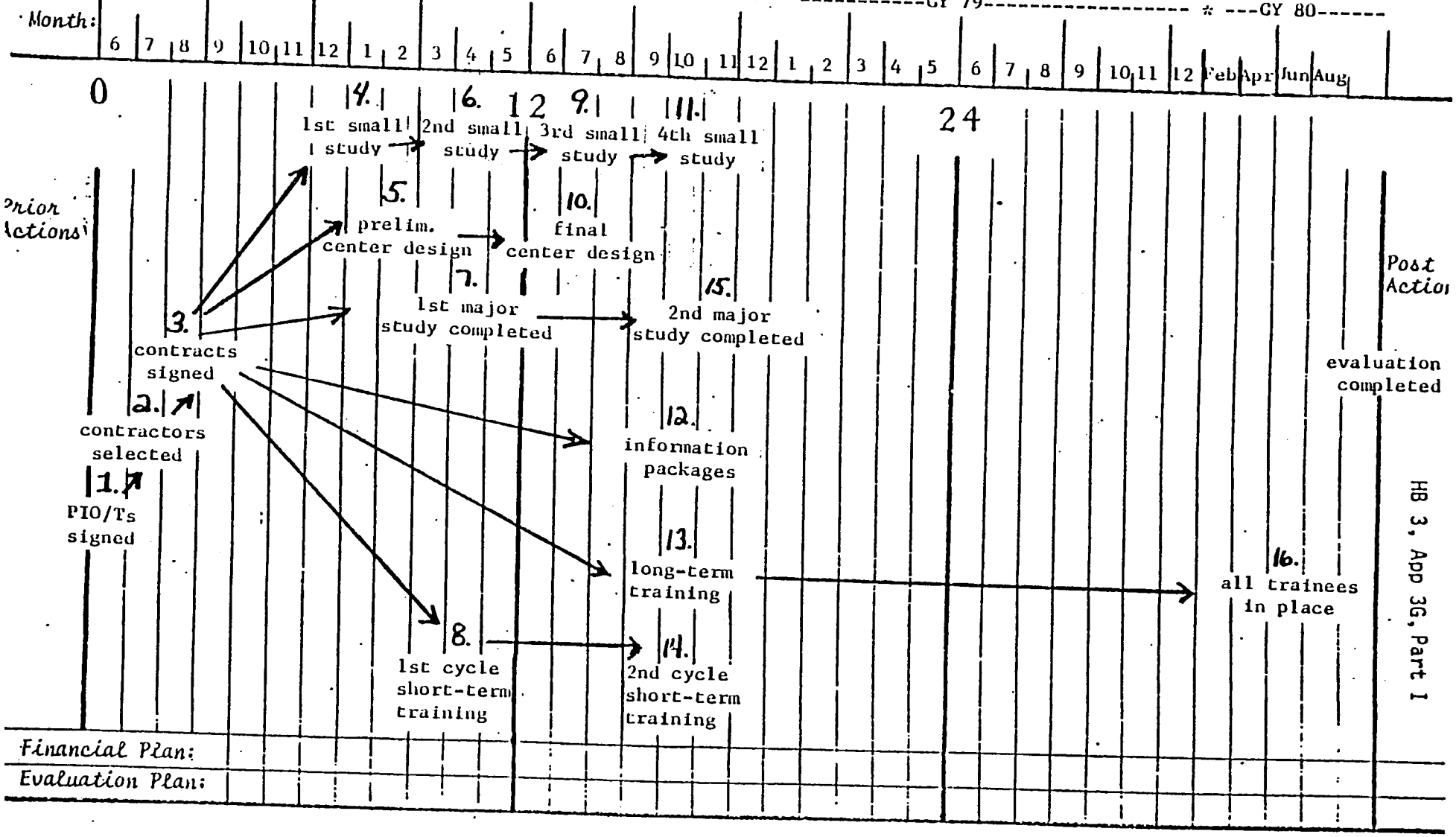
5. Establish network plans with appropriate regional and national institutions in both LDCs and the U.S.

G. Committee -- to coordinate the project's effort

1. Consultative committee -- composed of TAB And regional bureau representatives as well as experts in the communications field who are not on the project but who can inform TA/EHR about the latest happenings in the communications field and make sure that the best possible resources are being used. This group will meet every four months.

PPT FORM
(May be Expanded as Appropriate)

Country: Worldwide	Project No:	Project Title: Studies in Facilitating Learning: Communications Technology	Date: 4/22	/ X / Original / / Revision #__	PPT appr



HB 3, App 3G, Part I

PPT FORM

Country: Worldwide	Project No:	Project Title: Studies in Facilitating Learning: Communications Technology	Date: 4/22/77	/X / Original / / Revision #	Apprvd:

CPI DESCRIPTION

1. 6/15/77 PIO/Ts for all activities signed.
2. 7/15/77 Contractors for all activities selected.
3. 8/30/77 Contracts signed.
4. 1/1/78 First small planning and design study completed.
5. 2/15/78 Preliminary design of centers agreed to among TA/EHR, Regional Bureaus, USAIDs and participating countries.
6. 4/1/78 Second small planning and design study completed.
7. 4/1/78 First major planning and design study completed.
8. 4/1/78 First cycle of short-term training completed.
9. 7/1/78 Third small planning and design study completed.
10. 7/1/78 Final design for centers completed.
11. 10/1/78 Fourth small planning and design study completed.
12. 10/1/78 Information packages completed.
13. 10/1/78 All long-term trainees in training.
14. 10/1/78 Second cycle of short-term training completed.
15. 11/1/78 Second major planning study completed.
16. 6/1/80 All trainees in place.

Evaluation Plan

The nature of this project does not lend itself to the usual evaluation criteria outlined in AID Handbook 3. This is due to the fact that the project is entirely devoted to planning efforts for the five areas of activity detailed in this PP. This does not imply that evaluation will not take place, but only that the yardsticks for measuring project progress will be consistent with its nature.

The mechanism for evaluating the five project components, i.e., communication planning and design, training, seminars, information services and software center planning studies, will be an inter-bureau review panel. Its members will report to the AAA/TA who has been designated as the project's overall coordinating officer. Included will be representatives from: (a) TA/EHR and other TA offices where appropriate; (b) Regional Bureaus--dependent upon region in which activity will take place.

The review panel will be formed upon project acceptance. Its initial meeting will be spent in outlining project components and CPIs. Prior to initiation of the 5 project components, the committee will meet to review the design of the activity, and to review qualifications of consultants. Halfway through the component activity as indicated by the CPI, the committee will meet again to review progress and any problems. Following completion of the component activity, a final review will be held to ascertain whether targets have been reached.

SDHandleman:maf 4/22/77 59062

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

4. DOCUMENT REVISION NUMBER: Revision #2

5. PROJECT NUMBER (7 digits): 931-1109

6. BUREAU/OFFICE: A. SYMBOL; B. CODE: 36

7. PROJECT TITLE (Maximum 40 characters): Communications Technology Studies in Facilitating Learning

8. PROJECT APPROVAL DECISION — ACTION TAKEN: 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		E. 1ST FY ___		H. 2ND FY ___		K. 3RD FY ___	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1)		640		1,606		280		491	
(2)									
(3)									
(4)									
TOTALS									

A. APPROPRIATION	N. 4TH FY ___		O. 5TH FY ___		LIFE OF PROJECT	
	O. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN
(1)					2,377	
(2)						
(3)						
(4)						
TOTALS						

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

C. PROJECT FUNDING AUTHORIZED THRU FY

12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED ($000)

A. APPROPRIATION	B. ALLOTMENT REQUEST NO. ___	
	C. GRANT	D. LOAN
(1) A = 2	C = 79	
(2)		
(3)		
(4)		
TOTALS		

13. FUNDS RESERVED FOR ALLOTMENT

TYPED NAME (Chief, SER/FM/FSD)

SIGNATURE

DATE

14. SOURCE/ORIGIN OF GOODS AND SERVICES: 000 ☐ 941 ☐ LOCAL ☐ OTHER ___

15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED

Refer to PAF Amendment Part II for complete statement of the changes proposed.

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)

PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT

OF FUNDS

(PAF Amendment No.2)

ENTITY : DS Bureau

PROJECT : Studies in Facilitating Learning: Communications Technology

PROJECT NUMBER: 931-1109

The PAF is amended as follows:

I approve additional A.I.D. grant financing in the amount of $280,000. This will increase the total life of project cost from $2,097,000 to $2,377,000. The additional funding will be added to the university procurement contract to cover the additional tasks added to the original contract including the preparation of a communications planning guide, a policy addendum and a series of special reports regarding use of communications in formal and nonformal education. The contract would increase from $646,000 to $926,000.

Signature: S. Levin for S.L.

Sander Levin
AA/DS

Date: 7/17/78

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

UNITED STATES GOVERNMENT

Memorandum

TO : ~~DS/PO, Mr. Robert C. Simpson~~ → Bob
~~DS/PO, Mr. Ken Milow~~ KM

DATE: July 11, 1978

FROM : DS/PO, L. M. Prosser

SUBJECT: Request for Additional $280,000 in Project 931-1109, Communications Technology: Studies in Facilitating Learning

This package of documents includes:

A PAF Parts I and II requesting additional grant financing of $280,000 for this project to cover additional tasks which include the development of a planning guide for A.I.D. field personnel for the use of communications in conjunction with other technical programs.

A justification for noncompetitive procurement favoring Stanford University.

A PIO/T in the amount of $280,000 adding funds to the project and adding additional tasks by amendment of the Scope of Work of the contract.

You will recall that when Bob first saw these documents he asked for an output budget for the total project as well as for the specific products anticipated from the additional $280,000 and the modified Scope of Work. Your memo to Mr. Schmeding and the DS/ED responding memo signed by Mr. Block are contained in the top folder. I do not believe you will find the output budget particularly useful, and the explanatory material is also too vague and nonspecific to be very meaningful.

I think we should discuss this again before you send it forward.

5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

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

UNITED STATES GOVERNMENT

Memorandum

TO : DS/ED, Mr. Schmeding **DATE:** July 5, 1978

FROM : DS/PO, Bob Simpson RCS

SUBJECT: Request for Output Budget

The purpose of this project as originally stated was rather broadly conceived:

1. To catalog AID's uses of communication methods and media in development projects,

2. To analyze the operating assumptions about the role of communications in achieving development objectives in various sectors, and

3. To suggest considerations for the development of more effective strategies for AID in this area.

The request for an increase in funding leaves the impression that the scope of work for the contractor has been changing as we have learned more about the task. I have no problem with mid-course corrections; however, it's hard to get a sense of where all of this will come out. I understand there has been no formal evaluation, as yet, to give some indication of whether we are on the right track before increasing the budget by more than 40%.

On the basis of the original project documentation and the descriptive material presented in the attached request for additional funds, it is difficult to make judgments regarding the value of the products of this activity in relation to their costs. Neither is it possible to relate the value of the proposed special studies in relation to the additional funds here requested without a more detailed product related budget.

It seems prudent now to ask that the cost of the outputs of this project, including those proposed from the several special studies to be added, be carefully considered before additional funds are committed.

Please let us have your best estimate of the output budget for the total project and for the products expected from the

5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

proposed increase, so that we will have a better basis for recommending action.

MEMORANDUM

TO : DS/PO, Robert Simpson

THRU : DS/ED, Robert Schmeding

FROM : DS/ED, Clifford Block CB

SUBJECT: Output Budget for Stanford University Contract Extension (AID/ta-C-1472).

In response to your request of July 5, 1978 for more background information concerning the proposed extension of the Studies to Facilitate Learning Project, we submit the following output budget and comments on the progress of the work on policy and training:

CURRENTLY FUNDED (1472)

OUTPUT BUDGET

General policy papers on communications intended for AID/W - Overview - Education - Agriculture - Health - Nutrition - Population Seminars of Stanford Staff with AID/W substantive officers and AA/DS (Feb., June, August and Sept. 78).	$240,000
Training analyses Faculty training seminars	$140,000
Participant training and non-degree courses	$265,000
Total	$646,109

NEW FUNDING (Proposed Amendment)

Planning guide (s)	
- Overview	
- Education sector	
- Agriculture	
- Health, Nutrition, Population	
- Communications infrastructure and rural development	140,000
Policy Addendum	30,000
Special Topics (2-3 reports)	107,000
Total:	$277,000

We recommended this extension action based on our own unusually intense involvement in the conduct of this project. All I can say in addition is that:

(1) Sandy Levin has been very supportive of this project in general, particularly of the interactions with other offices stimulated by this process. In-depth interactions are to be continued next year;

(2) the demand for more field-oriented policy papers came from discussions with the Regional Bureaus. We had not focused on this audience initially;

(3) about 40% of the budget will be for special studies;

(4) the development of implementable policy directions is a difficult task, particularly in a diverse Agency of this kind. A good deal of tailoring and adaptation is required. That is what the second year is expected to accomplish.