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AGENCY FOR INTERNATIONAL DEVELOPMENT

NEPAL

PROJECT PAPER

RADIO EDUCATION TEACHER TRAINING II

367-0146

MAY 1984

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT DATA SHEET	1. TRANSACTION CODE <input type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete Amendment Number _____	DOCUMENT CODE 3
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2. COUNTRY/ENTITY NEPAL	3. PROJECT NUMBER 367-0146
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4. BUREAU/OFFICE ASIA	5. PROJECT TITLE (maximum 40 characters) Radio Education Teacher Training II
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6. PROJECT ASSISTANCE COMPLETION DATE (PACD) MM DD YY 09 30 89	7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4) A. Initial FY 84 B. Quarter 3 C. Final FY 85
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8. COSTS (\$000 OR EQUIVALENT \$1 = NRs. 16.00)						
A. FUNDING SOURCE	FIRST FY 84			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	950		950	1,619		1,619
(Grant)	(950)	()	(950)	(1,619)	()	(1,619)
(Loan)	()	()	()	()	()	()
Other U.S. 1. Peace Corps				120		120
2.						
Host Country		75	75		399	399
Other Donor(s)						
TOTALS	950	75	1,025	1,739	399	2,138

9. SCHEDULE OF AID FUNDING (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) EHR	600	624				1,619		1,619	
(2)									
(3)									
(4)									
TOTALS						1,619		1,619	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each) 640 670 620	11. SECONDARY PURPOSE CODE 634
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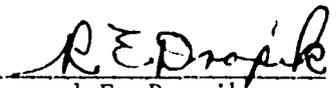
12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)			
A. Code	BR	TECH	TRG
B. Amount	1,619	1,619	446

13. PROJECT PURPOSE (maximum 480 characters)

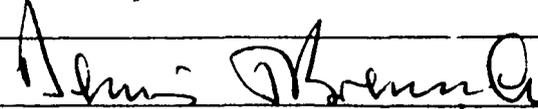
To improve the knowledge and skills of non-high school pass primary teachers through radio-based in-service training.

14. SCHEDULED EVALUATIONS Interim MM YY MM YY Final MM YY 01 87 09 89	15. SOURCE/ORIGIN OF GOODS AND SERVICES <input checked="" type="checkbox"/> 000 <input checked="" type="checkbox"/> 941 <input checked="" type="checkbox"/> Local <input type="checkbox"/> Other (Specify) _____
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16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment.)


 Raymond E. Dropik
 USAID/Nepal Controller

5/24/84
 Date

17. APPROVED BY	Signature  Title Dennis J. Brennan Director, USAID/Nepal	Date Signed MM DD YY 05 31 84	18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION MM DD YY
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PROJECT PAPER
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GLOSSARY OF TERMS

AIBD	-	Asia Institute for Broadcast Development (Kuala Lumpur)
CERID	-	Research Center for Educational Innovation and Development
CTSDC	-	Curriculum, Textbook and Supervision Development Center
DEO	-	District Education Office/Officer
EHR	-	Education and Human Resources
GON	-	Government of Nepal
MOEC	-	Ministry of Education and Culture
NFY	-	Nepali Fiscal Year
PCV	-	Peace Corps Volunteer
PIL	-	Project Implementation Letter
PIO/T	-	Project Implementation Order/Technical Service
RED	-	Radio Education Division
RETT I	-	Radio Education Teacher Training I, Project No. 367-0123
RETT II	-	Radio Education Teacher Training II, Project No. 367-0146
SLC	-	School Leaving Certificate
STL	-	Studio-to-Transmitter Link
S&T/ED	-	Bureau for Science and Technology, Office of Education (AID/Washington)
TA	-	Technical Assistance
TIP	-	Training Implementation Plan
USAID	-	United States Agency for International Development

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PART I

SUMMARY DESCRIPTION AND PROJECT RECOMMENDATION

A. Grantee and Implementing Agency

The Grantee will be the Government of Nepal (GON) and the Implementing Agency will be the Ministry of Education and Culture (MOEC).

B. Proposed Budget

1. Proposed Amount of AID Grant:	\$1,619,000
2. Proposed GON Input:	399,000
3. Proposed Peace Corps Input:	120,000
4. Total Project Budget:	<u>\$2,138,000</u>

C. Purpose of the Grant

The purpose of the Grant is to improve the knowledge and skills of under SLC (non-high school pass) primary teachers through radio-based in-service training.

D. Brief Project Description

The Radio Education Teacher Training (RETT) II project will assist under SLC primary teachers to improve their knowledge of the key academic subjects taught in primary schools. Concentration during the life of the project will be on mathematics, English, Nepali and science. Radio programs, supported by written materials, will be broadcast on a regular schedule by Radio Nepal. A small but significant portion of each program will convey information on development topics important not only to teachers but to the general listening audiences as well. The MOEC will coordinate the programs implemented in this project with teaching methodology RETT I programs, both those already developed as well as lessons currently being produced which draw on materials from the fourth and fifth grade curricula. The project will also provide training and equipment to Radio Nepal.

A separate but complementary component of the project funded centrally from AID/Washington, Bureau for Science and Technology, Office of Education (S&T/ED), will provide technical resources through a support contractor to strengthen the analytical capacity of the Ministry of Education and Culture. This component, which is tentatively budgeted at \$ 500,000, will provide assistance to

the Curriculum, Textbook and Supervision Development Centre (CTSDC) and the Statistics Division as well as to other divisions of the MOEC.

E. Recommendation

It is recommended that RETT II be authorized as a five year project (FY 1984-89) for a total AID obligation of \$1,619,000. This Development Assistance (DA) funding will be from the Education and Human Resources (EHR) functional appropriation account.

F. Issues

1. IBRD Primary Education Project

The World Bank approved in April 1984 (CY) a \$16.70 million project, including \$12.78 million in IDA funds, designed to improve primary education in six districts in Nepal (Annex 9). AID/Nepal will collaborate with the GON and the Bank on this activity. The Bank project will use RETT I and II broadcasts in their six districts and the Radio Education Division (RED) will be able to use these districts as trial areas to test various interventions which support the actual broadcasts. There will also be coordination on construction of additional space for RED at Sano Thimi.

2. Direct Broadcasts to Classrooms

AID has assisted several countries to broadcast radio primary school instruction directly to students (Annex 7). Given the limited project budget and the mid-term status of the teacher training approach, it was not considered feasible to change directions or to add classroom broadcasts as another major component to the RETT II project. However, as the RED develops into a permanent unit during the course of RETT II, further expansion of direct classroom broadcasts would be a logical next step to consider in the development of radio education for Nepal.

3. Upgrading Radio Education Teacher Training I

RETT I will continue broadcasting concurrent with the development of programs under RETT II. This project will support the continued development and

revision of RETT I radio programs and self-instructional materials for teachers in grades four and five. The extent of additional support for workshops or other forms of personal interaction to strengthen the possibility of teachers adopting the teaching techniques promoted in RETT I will be determined as the RETT II project proceeds, and limited contingency resources will be reserved for this purpose.

G. AID Project Committee

The members of the AID Project Development Committee are:

Janet C. Ballantyne, Deputy Director

Donald B. Clark, Chief, Project Development and Implementation Support (PDIS) Office

Jyoti R. Kansakar, Engineer, PDIS Office

George E. Lewis, Chief, Program Office

Francis Method, Bureau for Program and Policy Coordination, Office of Policy Development and Program Review, Human Resources Division (PPC/PDPR/HR), AID/Washington

Virgil D. Miedema, Project Officer, PDIS Office

Paul D. Morris, Economist, Program Office

David Sprague, S&T/ED, AID/Washington

Damodar N. Suwal, Program Specialist, PDIS Office

Tri R. Tuladhar, Program Assistant, PDIS Office

PART II

DESCRIPTION OF PROJECT

A. Background

1. Education in Nepal

During the past 30 years the Government of Nepal (GON) has made important strides in increasing access to primary education. This is documented in AID Project Impact Evaluation Report No. 19, U.S. Aid to Education in Nepal: A 20-year Beginning (May 1981), and subsequent available GON documents which point out the impressive quantitative expansion in number of schools constructed and equipped over this period, as well as the vastly increased number of teachers trained and students enrolled.

AID has been very much involved in this expansion. Between 1954 and 1975, AID was the only major donor involved in education sector assistance in Nepal and during this time AID financed ten different education projects, totalling \$16.6 million. Tables 1 and 2 show the magnitude of achievement attained.

TABLE 1

NUMBER OF SCHOOLS

	<u>(A)</u> <u>1951</u>	<u>(B)</u> <u>1976</u>	<u>(B)</u> <u>1980</u>	<u>(B) (C)</u> <u>1981</u>
Primary	321	8,768	10,130	10,628
Lower Secondary	*	2,289	3,501	2,786
Total (Grades 1-7)	*	11,057	13,631	13,414
	*			
	*			

TABLE 1
(Continued)

	<u>NUMBER OF STUDENTS</u>			
	<u>(A)</u> <u>1951</u>	<u>(B)</u> <u>1976</u>	<u>(B)</u> <u>1980</u>	<u>(B) (C)</u> <u>1981</u>
Primary	8,505	643,835	1,067,912	1,388,001
Of which female	86 (1%)	129,276 (20%)	299,512 (28%)	373,736 (27%)
Lower Secondary	*	188,688	391,427	169,564
Of which female	*	33,396 (18%)	80,889 (21%)	34,361 (20%)
Total (Grades 1-7)	*	832,523	1,459,339	1,557,565**
Of which female	*	162,672 (20%)	380,401 (26%)	408,097 (26%)

	<u>NUMBER OF TEACHERS</u>			
	<u>(A)</u> <u>1951</u>	<u>(B)</u> <u>1976</u>	<u>(B)</u> <u>1980</u>	<u>(B) (C)</u> <u>1981</u>
Primary	640	20,775	27,805	29,134
Of which trained ⁺ (Est.)	20 (3%)	8,142 (39%)	9,971 (36%)	10,585 (36%)
Lower Secondary	*	7,856	11,683	12,245
Of which trained	*	3,014 (38%)	4,587 (39%)	4,833 (39%)
Total Teachers (Grades 1-7)	*	28,631	39,488	41,379
Of which trained	*	11,156 (39%)	14,558 (37%)	15,418 (37%)

** This 1981 MOEC figure of 1,557,565 represents 64 percent of the school age cohort.

+ "Trained" refers to SLC pass as well as under SLC teachers who have received some sort of teacher training.

TABLE 1
(Continued)

OVERALL LITERACY RATE

<u>(A)</u> <u>1951</u>	<u>(B)</u> <u>1976</u>	<u>(B)</u> <u>1980</u>	<u>(B) (C)</u> <u>1981</u>
2%	17%	*	23.3%

- (A) Figures from AID Impact Evaluation Report No. 19, May 1981.
- (B) Figures from GON Ministry of Education and Culture (MOEC).
- (C) 1951, 1976 and 1980 primary school figures are for grades 1 through 3; 1981 primary school figures are for grades 1 through 5, and lower secondary figures are for grades 6 and 7 only. Teachers for grades 4 and 5 continue in 1981 to be reported as lower secondary teachers.

Note: As reported, the statistics do not allow reliable calculation of the percentage of the relevant age group enrolled in grades 1 to 5. While the age group is theoretically age 6 or 7 to age 10 or 11, the average age at entry to grade 1 is almost 9 years and it is apparent that a large but uncalculated fraction of those enrolled in year 5 is substantially older than 11. 1981 census data suggest a 5-year cohort age 6-10 or 7-11 would be approximately 2 million and 1.7 million for the 10-14 cohort. On this basis, the total number enrolled in grades 1-5 in 1981 would be equivalent to 65-70% of the official age group or about 80% of an older and somewhat smaller 5-year cohort 10-14. This provides a measure of the capacity of the system but does not tell what percentage of any given age cohort is actually enrolled.

TABLE 2

TEACHER:STUDENT RATIO

	<u>1976</u>	<u>1980</u>	<u>1981</u>
Grades 1-3	1:31	1:38	1:48*
Grades 1-7	1:29	1:37	1:38

PERCENTAGE OF TEACHERS TRAINED

Grades 1-3	39%	36%	36%*
Grades 1-7	39%	37%	37%

* For grades 1-5

The dramatic increases in the number of schools, teachers and students reflect a tremendous effort to build an education system almost from scratch in a period of only 30 years. However, it is widely recognized--by the GON and the donor community alike--that the quantity increases of the past 30 years have not been paralleled by quality improvements at the primary and lower secondary levels. Because primary school enrollment has expanded far more rapidly than teacher training, the GON has resorted to hiring teachers without the SLC for positions in the first five grades. Tables 1 and 2 while showing quantum gains in number of students, schools, and teachers also present some sobering statistics:

- The total number of teachers in grades 1-7 increased 7.6% per annum between 1976 and 1981 while the number of trained teachers increased only 7% annum. During the same period teacher supply at the primary level increased 7% annually, but only 6% annually for trained teachers.
- The ratio of teachers (overall) to students in grades 1-7 has dropped from 1:29 in 1976 to 1:38 in 1981, with somewhat higher ratios in the lower grades.
- The ratio of teacher (trained) to student has dropped from 1:75 in 1976 to 1:101 in 1981, also with the highest ratios in the lower grades.
- Trained teachers as a percentage of all teachers has declined from 39% in 1976 to 36% in 1981.1/

1/ Furthermore, the percentage of trained teachers varies widely from region to region. MOEC figures show that in far western regions the percentage drops as low as 22%.

Thus, as reported in the Impact Evaluation Report:

"...Severe problems still beset education in Nepal. The primary system is highly inefficient with 50% of enrolled students dropping out in the first three years before achieving functional literacy. The rapid expansion of the system has outstripped Nepal's capacity to train teachers, and the percentage of unqualified teachers is increasing. The level of learning is very low..."

While the GON still intends to push for increased coverage (quantity), particularly in the underserved rural areas of the hills, it also is committed to devoting increased attention to upgrading the quality of education. A first step is the creation of a viable and cost-effective system for improving the skill levels of primary school teachers. Radio education is an initial effort in this direction.

Among the many implications of the statistics summarized in Tables 1 and 2 and in the preceding discussion are three which need to be taken into account in the development of a radio education training program for teachers.

- a. At current rates of teacher training and recruitment of SLC pass teachers, there will be an annual net increase of at least 1,000 teachers without teacher training for the foreseeable future, most of whom will have less than SLC pass. Including teacher attrition and replacement (estimated at 5 to 6% annually), there will be almost 3,000 new teachers requiring in-service training annually.
- b. While the first concern may be the SLC content area competencies of the teachers at the primary level, the percentage of trained teachers at the lower secondary level is not significantly higher than at the primary level (39% versus 36%).
- c. The number of teachers needing in-service training (teaching methods and/or content skills upgrading) is 28,000 to 30,000 in 1984; of these about 12,000 have less than SLC pass. Economic analysis of RETT I indicated that the approach was cost effective over about 2,000

participants, with the unit costs declining sharply above that level. It appears highly probable that radio education content programs will be able to reach substantially more than this threshold number, particularly as RETT II evolves into a direct broadcast SLC content program for a wider audience.

2. AID Involvement in Radio Education in Nepal

a. Background

Through the Radio Education Teacher Training I program (AID Project 367-0123), AID has helped to establish a capacity within the MOEC for using radio education as a means of training large numbers of unqualified primary school teachers in widely dispersed geographic areas. To date, RETT I has provided training in teaching methods to an estimated 5,000 primary school teachers in grades one through three who have not received the School Leaving Certificate (SLC) degree, the equivalent to a high school diploma, and the program will continue to serve as estimated 1,500 annually.

Last year 2,777 primary school teachers who had received ten months of in-service radio training entered the examination developed by the Curriculum, Textbook and Supervision Development Center (CTSDC). Of that number, 1,103 (40.7%) passes.

b. RETT I Final Evaluation Recommendations

The RETT I evaluation concluded that the project was successful at reaching the target group of untrained rural primary teachers. The project clearly had some impact on the teachers' knowledge of teaching methods and subject area, however, the evaluation report recommended continued work with the under SLC teachers to improve their understanding of subject courses such as mathematics, science and English.

In agreement with this recommendation, this project will continue to concentrate on this

growing number of under SLC primary teachers in order to improve their basic knowledge of key academic subjects.

The evaluation also recommended systematic exploration of additional activities and materials to supplement radio broadcasts and self-instructional materials (programmed texts, periodic workshops, teachers' guides, use of model teachers, in-class programs). It suggested careful analysis of costs and implementation problems before any of these materials or techniques were considered for implementation on a national scale.

In line with this recommendation, the project will support a continuing series of research activities throughout the life of the project conducted by the Radio Education Division (RED) and the Research Center for Educational Innovation and Development (CERID) of Tribhuvan University. These research activities will provide direction and feedback to the project staff and will also provide critical data which the MOEC will be able to use as a basis for making decisions about the use of radio and other supplementary materials or activities for a variety of purposes at different points in the system. (See discussion of research topics in the project strategy section of the paper.) RED's and CERID's research and assessment capabilities will be strengthened as a result of this research component and through technical assistance and training under the project.

3. Rationale for the Project

The rapid expansion of the primary education system of Nepal has far outstripped the GON's capacity to produce qualified teachers in sufficient numbers. Just to maintain the same teacher-student ratio, the MOEC and local school managing committees will have to accept increasing numbers of under qualified teachers, many of whom have only finished formal education through the 8th or 9th grade. It is estimated that approximately 3,000 under-qualified teachers will enter the system each year

and most of them will have inadequate knowledge of the course content in those subjects they are expected to teach.

This project will increase primary teachers' knowledge of key subjects - mathematics, science, English, and Nepali. The target level of competence is that required for the School Leaving Certificate (SLC).

In addition, one component of the project--"The Magazine Section" of the radio program--will provide information on elective subjects required by the SLC examination and on other development topics. This component will also enable the project to experiment with different formats that may prove useful in subsequent use of radio for other development programs.

B. Detailed Description

1. Goal and Purpose

The project goal is to increase the access of children to relevant, effective primary education. The project purpose is to improve the knowledge and skills of under SLC primary teachers through radio-based in-service training. To accomplish this purpose the project will: (a) improve the capability of the Radio Education Division (RED) to design, test, implement and evaluate a wide variety of radio education teacher training activities, and (b) upgrade the research and analysis capabilities of CERID, CTSDC/RED and the MOEC generally so that this project and future education activities will benefit from decisions based on reliable data.

2. Project Strategy

a. Strategy Overview

Over a period of five years the project will support development of broadcast lessons, using radio and supplementary materials for self-study, in four content areas--Nepali, English, mathematics and science--and geared to the SLC curriculum and standards. In addition, it will support continued development and revision of RETT I broadcasts and materials.

The first year of the project will concentrate on: (a) expansion and strengthening of the staff of RED and its facilities at Sano Thimi, (b) installation of studio-to-transmitter-link (STL) equipment for Radio Nepal (plus technician training), and (c) accomplishment of necessary baseline studies and research preliminary to actually preparing broadcast lessons. Beginning in July/August 1985, there will be intensive workshops leading to firm workplans and production schedules for the first two content areas. Tentatively, these are Nepali and English, though other combinations may be considered by CTSDC. Broadcasts will begin in November after the Tihar holiday (1985).

In this first year RED will be provided two long-term specialists, one to assist with research and overall implementation planning for RETT II and another to assist with materials design and production. In addition, four individuals will be sent for long-term training and four person months of short-term training outside Nepal will be provided. Three intensive workshops are planned for RED and Radio Nepal staff in broadcast technology, materials design and production, and the content for the first broadcast year. These workshops will be assisted by approximately eight person months of short-term technical assistance (TA). During each of the next two years, four to six months of short-term training will be provided and during each of the next two summers, three to four months of additional short-term TA will be provided. The short-term TA will assist with materials assessment and revision from the first broadcast year and participate in intensive workshops, preparing materials and production plans, for either mathematics or science in 1986 and the remaining content area in 1987. Throughout, RED will be supported to conduct ongoing assessment, materials revision and in-service training.

b. Project Research

While more precise data and more systematic analysis of a large number of secondary

topics will be needed to guide program design and on-going revision, there are two priority topics on which additional research is essential during the first year of the project. Before regular programming commences the RED's Statistics and Research Sub-Branch will examine the following:

- the most appropriate times, length and sequencing of programs, considering schedules and workloads for the typical teacher, radio reception at different times of day, likelihood that some teachers may want to participate in both RETT I and RETT II, and other factors affecting program scheduling.
- baseline assumptions on what teachers know of the basic subjects and how well they now teach. Though the instructional objectives for RETT II are to prepare teachers to the levels required for an SLC pass in English, Nepali, mathematics, science and other subjects, it is generally agreed that many teachers will begin with knowledge and skills substantially below the 8th grade level. These shortcomings must be defined with sufficient detail and precision to enable remedial content to be included at the appropriate level and sequenced appropriately with more advanced material.

Additional topics that are important for the RED research staff to study, and which will be initiated after production has begun are:

- baseline data on students participating: age, sex, location, proximity to other students, years of schooling completed, whether or not previously a RETT I participant, etc.
- research to identify other interventions or inputs of materials and services necessary to facilitate learning or greater participation, e.g., text materials, contact with supervisors or tutors, organization of listener groups for support or for group work, etc.

- assessments of program reception and comprehension.
- monitoring of other groups making use of RETT II broadcasts such as extension workers, secondary school leavers, and secondary students who may use broadcasts to supplement regular class instruction.
- research to determine if SLC pass primary teachers who teach mathematics, science or English would benefit from being enrolled in RETT II broadcast programs in these subject areas.

In addition to the research needed for initial design and for ongoing revisions, CERID 1/ will develop and carry out research to determine RETT II impact on teacher effectiveness. Research plans and necessary baseline studies and/or arrangements for comparison groups are expected to be completed in cooperation with RED, prior to beginning the first year of regular broadcasting, i.e., prior to November 1985. Two impacts are particularly important in this regard:

- evidence of direct transfer of content or teaching methods from RETT II to the primary school classroom; research methods may include direct observations of classrooms, detailed analysis of classroom content, random sample tests of key skills or content items; and,
- evidence of any differences in professional behavior or motivation between RETT II participants and comparison groups of teachers; evidence might include frequency

1/ CERID, as part of the Tribhuvan University system, is Nepal's main education research organization with responsibility for: (1) applied and policy research in education; (2) evaluation studies of ongoing education programs; (3) action-oriented research in support of innovative education projects; and (4) publishing and disseminating education research findings.

of classroom absence, attitude surveys on teaching as a career, teacher's self-assessment of his/her teaching competence, teacher's expectations of probable achievement levels for their students, or other measures.

Of course, these respective research responsibilities of CTSDC/RED and CERID are closely connected, and AID/Nepal and the MOEC assign great importance to the establishment of a productive relationship between these two organizations in the area of radio education research. This is particularly critical given the important implications for the potential use of radio in Nepal well beyond the specific field of teacher training. Working together in this project, CERID will be able to assess and document not only RETT impact but also the long-term potential use of radio, while RED will draw on CERID's research capabilities to help implement the research components of RETT II. The coordination, selection and monitoring of all research activities will be under the direction of a Project Research Committee headed by the Chief of CTSDC with participation by RED, CERID, and the long-term Researcher/Education Systems Designer. This committee will decide on appropriate topics for research and the level of effort from project resources. Development of research methodologies will be under the control of the unit actually implementing the research (either CTSDC/RED or CERID)

The long-term payoff to improving teacher performance through this project is improved student learning. While determination of this linkage is essential, it is a long-term impact which will require ongoing research beyond the scope of this project; and it must be emphasized that all these project research activities are part of the process of further strengthening CTSDC/RED and CERID's permanent research and analysis capacity to contribute to ongoing evaluation, development and implementation of radio education in Nepal beyond RETT II. To help promote this process a substantial part of the technical assistance and training under

the project will be directed to strengthening the Statistics and Research Sub-Branch of RED. One appropriate long-term training position will be provided to CERID, as well as support from the long-term research advisor.

c. Administration and Staffing

It is critical that the implementing unit, the Radio Education Division (RED), be headed by an experienced individual with a well-qualified, motivated and permanent staff. This is particularly crucial in light of the slow startup of the RETT I project and the high turnover of RED professional staff.^{1/}

The MOEC has agreed to appoint to the position of Director (Specialist) of the Radio Education Division a suitably qualified official who has permanent job status within the MOEC at the gazetted second class technician level (GON personnel scale). The Director of the RED will also serve as Project Manager with the authority to coordinate and direct all project activities. He will report to the Chief, CTSDC.

Movement of temporary and deputed personnel in and out of the Division will be reduced when the MOEC makes the RED staff positions permanent, as it has agreed to do. The process of establishing these permanent positions is, in fact, already well underway.

The RED staff currently consists of a total of 36 employees (see Table 3), but of these 36 only seven are permanent MOEC employees, and even these are on deputation status from other parts of the MOEC. Thus, while the RED does have a working staff, it has no permanent organizational structure. To rectify this,

^{1/} While high turnover of staff does remain a problem there has been some progress. For example, five of the 17 individuals given U.S. short-term training under the RETT I project are still working in the Division; the other 12 are employed elsewhere in the MOEC and could be brought into the RED, if required and permanent posts were offered.

TABLE 3
CURRENT STAFF
CTSDC
RADIO EDUCATION DIVISION

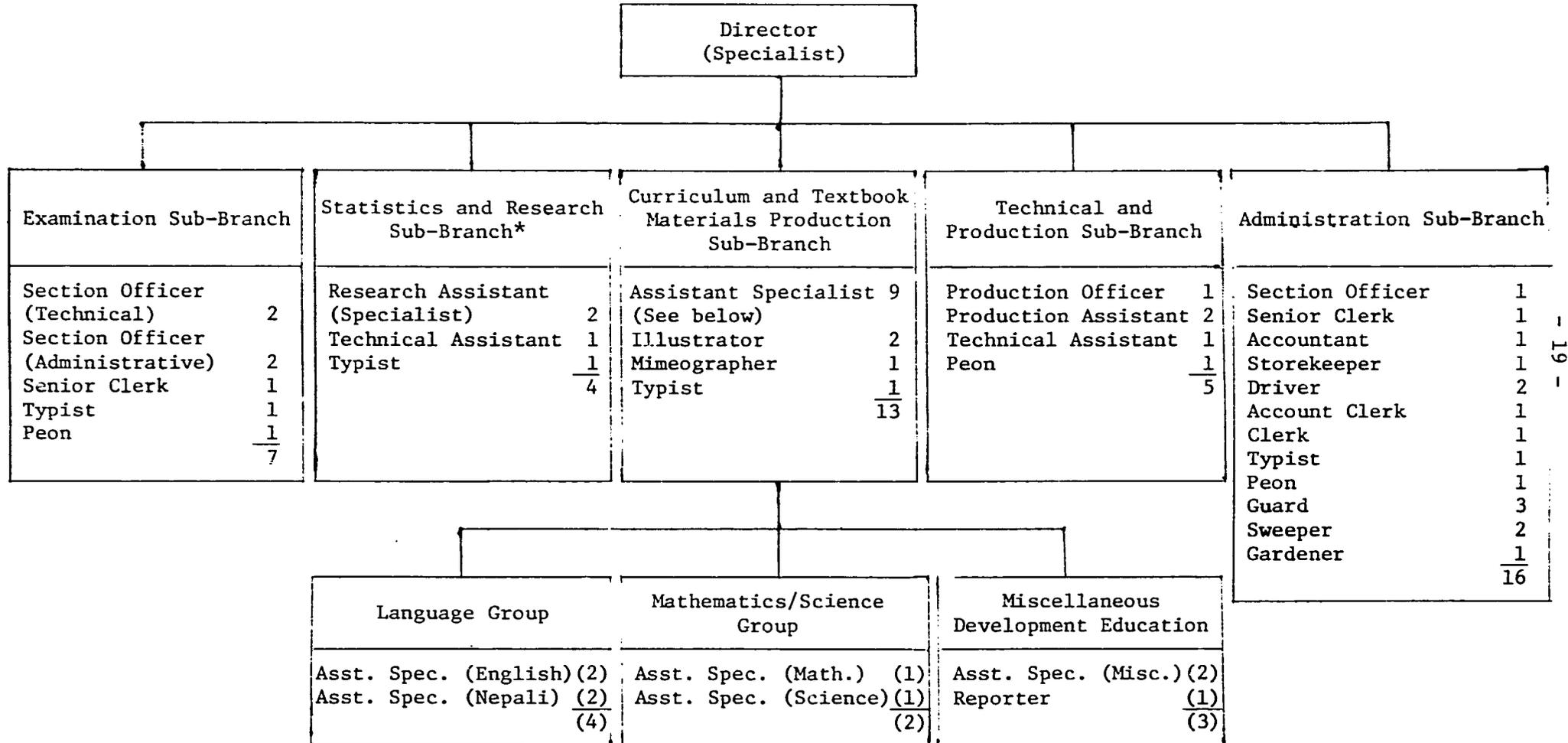
<u>Position</u>	<u>Number</u>
Director	1
Administrative Coordinator	1
Production and Technical Coordinator	1
Course Development Coordinator	1
Research and Examination Coordinator	1
Examination In-Charge	1
Examination Consultant	1
Research Officer	1
Team Leaders	5
Health Specialist	1
Magazine In-Charge	1
Producers	2
Technicians	2
Accountant	1
Procurement Officer cum Librarian	1
Assistant Administrator	1
Illustrators	2
Typists	3
Miscellaneous Support Staff (drivers, mimeographer, peon, watchman, etc.)	9
	<hr/>
Total	36

the MOEC and AID/Nepal have worked out an organizational framework which calls for 46 permanent positions (see Table 4). The MOEC has indicated its willingness to establish all of these 46 RED positions as permanent, to be occupied by regular MOEC employees. This will mean 22 permanent professional and 24 permanent non-professional positions (see Table 4). It is expected that this staff will be in place shortly after the beginning of the project or soon after start of the GON fiscal year 2041/42 (mid-July 1984). A condition precedent to this effect will be contained in the Grant Agreement.

Also, prior to the beginning of regular programming (November 1985), at least two MOEC officials at each of the five Regional Education Directorates and one of the primary school supervisors in each of the 75 District Education Offices will be assigned RETT support duties (these will not be new MOEC employees). Peace Corps Volunteers (four) will also be assigned to the project to work at the Regional Directorate level. The exact job responsibilities for these regional, district and Peace Corps staff members will be based on findings regarding appropriate interventions to support the actual broadcasts but, as a minimum, will include: (i) enrolling teachers (in RETT I and II); (ii) handling distribution of radios and any other support materials; (iii) carrying out any necessary research as indicated by CERID and/or RED; (iv) maintaining RETT records; and (v) providing contact sessions and feedback to enrolled teachers. It is expected that the Peace Corps Volunteers will begin their work on this project in June or July 1985.

TABLE 4

ORGANIZATION CHART
CTSDC
Radio Education Division



- 19 -

* Interviewers and enumerators will be hired temporarily on an as needed basis during peak fieldwork periods.

d. Technical Assistance

Two complementary components of technical assistance (TA) will be available: (i) technical assistance specifically to strengthen RED staff and support RETT I and II programs; and (ii) technical assistance under a separate, centrally funded component focused more broadly on strengthening analytic and research capacities of the MOEC (see Annex 10).

i. TA for RED and RETT II Implementation

Technical assistance for the RETT II project will build on the staff training already accomplished under RETT I. All TA specialists funded under this project will perform professional services as full members of the RED project staff under the general direction and supervision of the RED Director. They will be located along with the rest of the RED staff at Sano Thimi headquarters.

The project will fund two long-term advisors: (i) a Researcher/Education Systems Designer and (ii) an Instructional Materials Production Specialist. The first of these, the Researcher/Education Systems Designer will, if possible, be recruited locally. This person will be familiar with distance teaching programs, educational technology and research methodology. Assignment will be as early as possible in the first year of the project (August or September 1984). He/she will remain for two full years. The specialist in materials designs and production will be assigned in early 1985, when curriculum development and trial broadcasting will get underway. This person will remain for one year, with the possibility of some short-term follow-up work later in the project. The job descriptions for both these positions are in Annex 3.

Short-term technical assistance will also consist of subject matter specialists for

the key content areas of English, mathematics, science and Nepali. These specialists will work with the regular RED staff for two months during the first year a subject is broadcast, with one month follow-on in the next year (see Table 5).

TABLE 5
TECHNICAL ASSISTANCE SCHEDULE

	1984	1985	1986	1987	1988	1989
Long-Term						
Researcher/Education Systems Designer		XXXXXXXXXXXXXXXXXXXXXXXXXXXX				
Instructional Materials* Production Specialist (U.S. hire)		XXXXXXXXXXXX		X		
Short-Term						
English Specialist (U.S. hire)			XX	X		
Nepali Specialist			XX	X		
Mathematics Specialist (U.S. hire)				XX	X	
Science Specialist (U.S. hire)					XX	X
Radio Technician Trainers		XX	XX			
Miscellaneous TA Support for in-country training for regional and district staff			XXXX	XXXX		

* Includes short-term follow-on.

ii. TA for MOEC Research Planning and Analysis (S&T/ED component)

Additional to resources made available under the Grant Agreement for RETT II, a technical assistance component will be designed to support and strengthen the overall analytic and statistical capacity of the MOEC. This component, described more fully in Annex 10, will be funded separately by AID/Washington under a project designed to improve the efficiency of educational systems in several countries. The TA will be provided through a support contractor under the S&T/ED project. Specific uses of these resources will be discussed with MOEC officials during the fall 1984 when the AID/Washington Project Officer for this activity comes to Nepal to finalize the details of this component. Examples of interventions may include analyzing:

- statistical data collection and processing arrangements;
- administrative or logistic management systems for delivering and maintaining critical inputs to local schools;
- strategies for increasing school completion rates;
- delivery systems for adolescent and adult instruction.

While this component will be coordinated with RETT II and designed to be supportive of RETT II as well as other MOEC experimentation, such as the World Bank primary education project, it is not formally part of the RETT II Project Agreement.

Tentatively, it is anticipated that this assistance may take the form of:

- a. long-term technical assistance/research collaboration. AID, through the S&T project, will be prepared to support a resident specialist assigned to

CTSDC, the Statistics Division, or elsewhere in MOEC for at least the first two years and to discuss longer term support over a five to ten year period.

- b. short-term TA (2 times 4 weeks annually) to work with individuals and small groups on the design of research and/or experimentation on specific problems identified by the MOEC.
- c. dissemination of MOEC research and evaluation activities and "external networking" to facilitate direct contact and observation with projects in other countries with analogous problems and at least partially transferable alternative approaches. Two person months annually is estimated to enable key Nepali staff of MOEC to attend conferences/workshops and to observe relevant research or experimentation in progress in the U.S. or in other countries.
- d. funding for small-scale research and development, special studies and local workshops, conferences or other research dissemination activities within Nepal. For example, central funding will be used to support further experimentation with solar rechargers for radio batteries.
- e. Training (see Table 6)
 - i. Long-Term Training

The project will provide long-term masters degree training in the United States for four participants: three from the MOEC who will, upon return, be assigned to the RED or elsewhere in CTSDC and one researcher from CERID. Training Implementation Plans (TIPs) for all four of these participants will be agreed upon by USAID/Nepal and the MOEC prior to departure for training.

At least two of the above should be trained to M.A. or M.Ed. in education research with some practical experience either as a practicum/M.A. thesis as part of the required academic program or as a supplementary internship with education experiments involving:

- distance learning methods;
- formative assessment of adult learning activities;
- instructional systems design;
- tests and measurements; and
- systems planning techniques including cost analysis.

Obviously, any one program can include exposure to only a few of the above topics, which are presented as illustrative rather than definitive. However, since these two individuals upon return will be expected to coordinate their research, it is important that they have both basic academic training in research methods and practical exposure to a range of techniques and approaches used in the design and implementation of distance teaching. Upon return, first priority for placement will be in the Statistics and Research Sub-Branch of RED. The second participant will be assigned to CERID.

The other two long-term participants should be assigned either to RED or elsewhere within CTSDC at the discretion of the Chief, CTSDC, particularly if by the return of the trainees in 1986 there are plans to develop other distance instruction programs within other units of CTSDC. Additional needs for training will be reviewed as part of the mid-project evaluation (January 1987). If long-term training for other persons is desirable, contingency resources may be reallocated for this purpose.

ii. Short-Term Training

a. External Training

Sixteen person months for structured training programs will be identified with the help of S&T/ED or the support contractor in areas such as the following:

- instructional materials design and production methods;
- assessment/evaluation, statistical and field research methods;
- curriculum development for primary mathematics or science;
- language instruction methods;
- technical skills in the use, production or dissemination of media.

This training will be available only to permanent RED staff members. Again, TIPs will be agreed upon before departure of participants.

b. Local Training for Radio Nepal

Two one-month courses for technicians to be conducted in Kathmandu by instructors from the Asia Institute for Broadcast Development (AIBD, Kuala Lumpur). Neither the Harris transmitter provided under the RETT I project nor equipment recently installed by the Japanese is being fully utilized, partially due to the lack of fully trained engineers. These short courses will be designed to rectify this. AIBD has committed itself to providing the instructors; project funds will cover travel and per diem plus participants costs.

c. Local Training for RED

Eight person months of local short-term technical assistance will be provided in 1985 and 1986 for specialized workshops (5 workshops X approximately 20 participants X 1 week= 25 person months of training) for RED and appropriate regional and district level MOEC staff (see page 18). This training will be applied and practical in nature, with emphasis on logistics and specific design or implementation problems, rather than seminars or presentation of theory. The TA resource people will have personal experience with the development and implementation of similar activities.

f. Equipment for Radio Nepal and RED

In order to enhance the usefulness of the Harris SW 110 transmitter provided to Radio Nepal under RETT I the project will purchase during the first year a Studio-to-Transmitter Link (STL) system, ancillary equipment and spare parts. Radio Nepal has already obtained specifications and cost estimates for this equipment (see Annex 5) and AID/Nepal is satisfied that Radio Nepal technicians will be able to install this equipment without TDY technical assistance.

Operation of this additional equipment will enable Radio Nepal to broadcast on two channels simultaneously using different transmitters. This could effectively double broadcast time. Radio Nepal expects to air a variety of development-oriented programs, including RETT I and II.

The project will also purchase 4,800 radio sets and some other additional equipment for the RED, as indicated in Annex 5.

TABLE 6

Training Schedule*
(U.S., Third Country, Local)



Long-Term
M.A./M.Ed. (U.S.)

96 person months (pm)
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Short-Term
Training for RED Staff (U.S.)

4 pm
xxxx 4 pm
xxxx 4 pm
xxxx 4 pm
xxxx

Radio Nepal Technicians'
training (2) (local)

8 pm
x 8 pm
x

Language workshops (2)
(local)

10 pm
x

Workshops for Regional and
District RETT staff (5) (local)

10 pm
xx 15 pm
xx

Mathematics workshop (1)
(local)

4 pm
x

Science workshop (1)
(local)

4 pm
x

* Total number of person months of formal training is 171; AID cost (only) per person month is about \$3,150.00.

C. Institutional Development

While the RED is not yet fully developed as an institution within the MOEC, much progress has been made over the RETT I project period. The MOEC annual budget for RED is approximately NRs. 600,000 (\$ 37,500), additional to the RETT I project budget. (Together these two budgets provide the Division with all the funds currently available to it.) It is expected that the MOEC's budget for the RED will increase by at least 10 percent each year during the life of this project, so that when AID's input ends the Division's annual budget will be about NRs. 1,000,000 (\$ 62,500), not including inflation. This, along with a field operations budget of about NRs. 500,000 (\$ 31,250) per year, will be adequate to support continuing RETT I and RETT II type broadcasts. The proposed RETT II budget details are given in Part IV.

The RED has its own building at Sano Thimi about 1.0 kilometers east of the city of Kathmandu. This RED office was constructed under the RETT I project and has facilities for about 35 Division employees, plus a recording studio. The studio will be fully operational once the ongoing aid-conditioning and sound-proofing work is completed in June 1984. Adding 10 new Division employees under this project will require additional space. The MOEC will provide this either on its own or with World Bank assistance under their primary education project. If neither of these options appears feasible within the first few months of implementation, project contingency funds may be considered for this construction. Temporary facilities will be arranged by the MOEC for the first year of the project.

A more subtle but no less critical feature of establishing RED as an effective institution concerns the establishment of systematic processes for developing educational radio programs and accompanying print materials. RETT I and RETT II projects should follow a "systems approach" to materials development that includes: thorough analysis of learner characteristics and competencies; construction of lessons in a carefully sequenced order tied to specific behavioral objectives; small-scale tryouts; revision based upon learner performance; and finally, large-scale implementation. As much as possible, the production staff will monitor the effectiveness of the materials during the entire course of the project and make necessary revisions or adjustments in future lessons.

During the second, third and fourth years of the project the RED will produce English, Nepali, mathematics, and science programs for broadcasting to under SLC teachers. The first six months of the project will be devoted primarily to research, including trial programming, based on which full-scale development of broadcast programs will begin. Following each broadcast cycle there will be an assessment. This planned program development cycle over the life of the project will enable the RED to increase its experience in research and formative evaluation, scriptwriting, broadcasting and materials revision.

In addition to on-the-job programming experience, staff capabilities will be strengthened further by the participant training and research aspects of the project. Project implementation will also provide the RED with necessary experience in all aspects of administration, i.e., budgeting, staff planning, etc. By the end of the project the RED will have the capabilities to design, implement and internally evaluate a wide variety of radio education teacher training activities.

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PART III

PROJECT ANALYSIS

A. Technical Analysis and Environmental Implications

1. Suitable Technology

The use of radio broadcasting in the project is appropriate to Nepal's inaccessibility and weak economy. The technology has already been used satisfactorily under the RETT I project, except for the solar rechargers for radio batteries. Solar recharger technology has become less expensive and more practical and additional field trials will be supported by the centrally funded component.

The shortwave receivers distributed under RETT I are mechanically quite simple and relatively easy for an appropriately trained person to maintain. Four thousand eight hundred additional similar sets will be purchased for use under this project. Radios will be sold to enrolled teachers on an installment basis at a reduced price. RETT I teachers will also be allowed to purchase the radios distributed previously in RETT I. The District Education Officer (DEO) and his designated radio education supervisor will handle sale and distribution of the radios as part of their responsibilities as district-level enrollment coordinators. A special project account will be set up so sale proceeds can be used for purchase of additional radios or for support of other RED activities, and a condition precedent to this effect will be contained in the Grant Agreement.

The only technical problem of any major significance to the project is the selection of appropriate shortwave meter bands for program transmission. In RETT I a distinct and constant humming noise was present in some districts while the program was being broadcast on the 60-meter band. Broadcasting was subsequently switched to the 91-meter band (at least for the winter months) but transmission on this band does not cover all of the country. It is believed that good quality reception could be received nationwide on either the 31 or 41-meter band, and the STL equipment provided under the project will give Radio Nepal the capability of broadcasting simultaneously on two different bands. A covenant will be included in the Grant Agreement, to the effect that Radio Nepal will assure highest possible

quality, nationwide transmission of RETT I and II programs.

2. Suitability for Replication

With the new Studio-to-Transmitter Link, Radio Nepal will effectively double its potential broadcast time, facilitating transmission of both RETT I and RETT II programs. As the utility of radio-based training is further demonstrated, expansion of training into other areas will be possible. These areas may include in-school broadcasts, in-service training for lower secondary and secondary teachers as well as general development broadcasts. The potential impact of such broadcasts in various development sectors (not just education) could be significant. The transmission technology as well as RED staff will be in place, and expansion of this system will then hinge on quality programming relevant to the needs of the country.

3. Capability for Operation and Maintenance

Radio Nepal is already effectively operating a nationwide broadcasting system, and its staff's technical skills will be further strengthened through training to be provided under this project (see Part II).

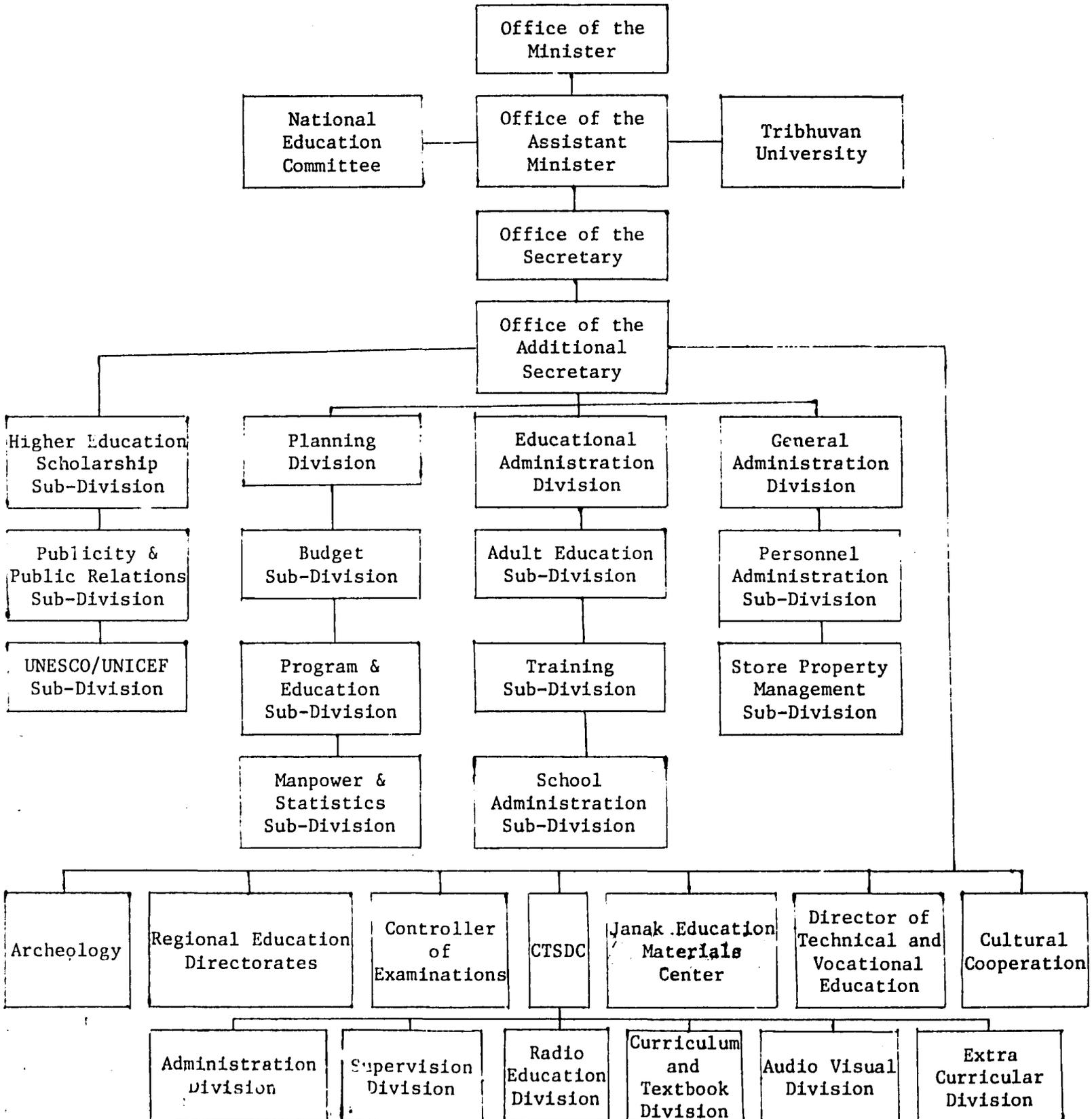
4. Environmental Implications

The environmental implications of this project are negligible. An Initial Environmental Examination (IEE) was conducted in September 1982 and submitted along with the Project Identification Document (PID) which was approved in October 1982. A negative determination was made.

B. Administrative Analysis

The RED operates as one of six divisions under the Curriculum, Textbook and Supervision Development Center of the MOEC (see Table 7) and, as such, its status as an operational unit within the GON is established. Lines of authority are clear and this and other CTSDC divisions are well supervised by CTSDC management. (Logistically, CTSDC management of RED will become easier when CTSDC's new World Bank-funded office is built next door to the existing RED facility.) However, as noted above, the

TABLE 7
ORGANIZATION CHART
MINISTRY OF EDUCATION AND CULTURE



lack of permanent positions and the resultant rapid turnover of staff has had a negative effect on the day-to-day management and operation of RED. In developing this project, USAID/Nepal and the GON have agreed on how to address this concern (see section on administration and staffing) and an appropriate covenant and condition precedent relating to this will be contained in the Grant Agreement. USAID/Nepal has determined that meeting these staff needs as planned will adequately strengthen the administrative capabilities of the Division.

The budgeting process for the RED is well established and, as noted below in the budget section, outyear budget plans indicate that the GON will be able to carry on the activities initiated by this project.

CERID's administrative and management structure is adequate to assure that its staff will be able to carry out research as called for under this project.

C. Policy Analysis

1. Conformity with GON Strategy/Program

As one means of improving the state of education in Nepal the GON has established a five year target of guaranteeing primary education to 75 percent of the children in the six to ten year old age group. In order to accomplish this, it is estimated that some 18,000 new primary teachers will have been brought into service between 1981 and 1985. Most of these will not have teacher training and will not have passed the basic course work for the SLC.

Given MOEC institutional and financial constraints, as well as the logistics problems inherent in Nepal's topography, the use of mass communications for training purposes is one of the few attractive and feasible alternatives. Nepal's topography is such that a large portion of its rural areas are accessible only by walking long distances. This makes supervision of teachers difficult and adds to the problems created by their weak backgrounds in subject content. Recognizing this, the GON Sixth Plan specifically calls for expanded use of radio to upgrade the skills of rural teachers.

2. Relation to AID Policy Paper

The AID Policy Paper on Basic Education and Technical Training (December 1982) gives first priority within AID's education sector assistance to improving education system efficiency. AID will emphasize strengthening host country capacities to: (1) identify inadequacies in existing education systems; (2) test technical and strategic options for overcoming inadequacies; and (3) implement cost effective new programs. Programs are to be aimed at increasing opportunities for rural children. The policy also encourages research and development efforts which contribute to cost effective extension of education and training services. Among the technical and strategic options specifically encouraged is the use of radio and other media to extend education cost effectively in rural areas.

The lack of trained teachers in primary schools has been identified as one of the major constraints to improving student performance, retention and promotion rates and, hence, system efficiency. The use of radio to upgrade teachers has proved cost efficient in RETT I, and the project will build directly on this earlier experience. The beneficiaries of improved teacher performance will be the rural children whom the targeted teachers instruct. A major component of the project is research and assessment to explore the cost effectiveness of other interventions which may support and enhance the effect of the radio broadcasts. In short, this project adheres fully to agency policy on basic education.

3. Relation to CDSS and Asia Strategic Plan

AID/Nepal's CDSS recognizes the importance of improving education as a major building block in Nepal's development and, with its potential effect on population activities, as one of the priority areas for AID involvement.

The Asia Strategic Plan calls for "fairly limited involvement" in the education sector. The RETT approach is both a cost-effective technology and the least-cost means available for effective AID involvement in this sector.

RETT II will be implemented in close collaboration with a much larger World Bank project assisting primary education and will also involve Peace Corps and a centrally-funded research and analysis component. Both the training and research supported under the RED/RETT project component and the parallel component supported by S&T/ED will support the strategic objectives of policy dialogue, strengthening for key institutions (RED, CTSDC, CERID) and the development of new technologies and approaches based on research and technology transfer. STL equipment for Radio Nepal and most of the other equipment, commodities and support materials for project implementation will be supplied by private companies.

Thus, the project conforms both to Agency strategy objectives and to the Asia Strategic Plan's priorities for the education sector of concentrating on selected areas in which innovative approaches may be demonstrated, in which media such as radio can be used cost-effectively to support extension of education in rural areas and through which AID resources can contribute to improved policy analysis and planning.

D. Economic Analysis (see Annex 2)

A least-cost analysis was used comparing the RETT approach (using RETT I unit costs as a proxy for RETT II) with a campus-based alternative (using the UNICEF-assisted Women's Teacher Training Program as the only existing alternative).

The campus-based training is about 10 times the RETT cost per student year and at least twice the cost per instructional hour. However, almost six times as much instruction is provided in the campus-based approach, presumably with some increased effect on quality and content learning. Against this, all 250 hours of the RETT approach are content instruction while some part of the campus-based 1,440 hours is supervised practice and other "non-instructional" hours.

Clearly, RETT is the least-cost approach, particularly given the similar 40 percent pass rate. Whether it is the more cost-effective approach depends on whether there are qualitative advantages to campus-based training which are not measured by the examination, and the values assigned to these advantages. At present there is no evidence that these are of sufficient magnitude to overcome the unit cost advantage of the RETT approach. The variables in the RETT approach which will be most critical

to determination of cost-effectiveness will be the supplementary instructional materials and supervision for RETT II participants. This will be a major focus of research and materials design during the first year and will be monitored closely throughout RETT II.

E. Social Soundness Analysis (see Annex 2)

1. Beneficiaries

Teachers will be able to take advantage of the training without the cost or social disruption of temporarily moving elsewhere for training. Those teachers who successfully complete the training and pass the SLC examination will receive the MOEC's standard pay increase for SLC pass teachers (at present a difference of Rs. 45/month) plus the security and satisfaction of having a secondary school certificate.

Secondary beneficiaries will include: (i) rural school children who receive the benefits of improved teacher performance; (ii) a general listening audience which will gain directly from the broadcasts, especially the development segments; and, (iii) secondary school students who will be able to supplement their regular classroom instruction by listening to the broadcasts. (Eventually, RETT II may evolve to a direct broadcast for SLC, serving a wider audience than teachers.)

2. Spread Effects

Developing radio as a cost-effective tool can have broad implications for other sectors, such as agricultural extension and health and nutrition education. The additional radio broadcasting equipment to be provided under RETT II will enable Radio Nepal to broadcast on two channels simultaneously, using different transmitters. This will effectively double broadcast time which Radio Nepal can use to air a variety of development-oriented programs.

3. Non-formal Education Issues

Teachers are often community leaders with the potential for using their positions to influence community development. Unfortunately, their very limited educational background inhibits their effectiveness. The increased knowledge and support offered to them by this project will contribute to strengthening

their status, confidence and general effectiveness as community leaders.

4. Women's Issues

RETT II will not directly address the low representation of women teachers or the need to increase the enrollment of girls in the education system. However, there are three ways in which RETT II will have an impact on women's status in education:

- i. all untrained under SLC pass women teachers will be enrolled in RETT II. Assuming they pass the SLC they will receive a salary increase of Rs. 45/month;
- ii. RED will integrate women's programming into the broadcasts. Women characters will be portrayed in a strongly positive way; and
- iii. too few female teachers at the primary and the secondary levels may be an important factor in maintaining traditional parental attitudes toward educating daughters. By strengthening the skills of available female teachers and providing support for newly hired female teachers, RETT II will contribute to reducing parental skepticism about education for their daughters.

5. Effects on School Participation

Improved teaching, together with additional materials and strengthened commitment on the part of those newly trained, should have strong positive impact on school enrollment and retention rates.

PART IV
PROJECT BUDGET

Brief Summary Budget

	FX	LC	
1. AID Inputs			
a. Technical Assistance	(360,000)	(4,400)	\$ 364,400
b. Training	(256,000)	(165,000)	421,000
c. Research	(-)	(120,000)	120,000
d. Evaluation	(27,800)	(27,800)	55,600
e. Supplementary Instructional Materials	(-)	(90,000)	90,000
f. Commodities	(294,000)	(-)	294,000
Total Line Items	(937,800)	(407,200)	1,345,000
g. Contingency (10%)	(93,780)	(40,720)	134,500
h. Inflation (6% compounded)	(90,300)	(48,900)	139,200
TOTAL AID INPUT	(1,121,880)	(496,820)	1,618,700
2. GON Inputs			
a. RED Operating Costs	(-)	(234,099)	234,099
b. MOEC Field Operations	(-)	(112,776)	112,776
c. Capital Improvements	(-)	(52,200)	52,200
TOTAL GON INPUT	(-)	(399,075)	399,075*
3. Peace Corps Input			
a. 12 Volunteer Years	(60,000)	(60,000)	120,000
TOTAL PEACE CORPS INPUT	(60,000)	(60,000)	120,000
4. TOTAL PROJECT BUDGET	(1,181,880)	(955,895)	\$2,137,775+

* GON Input calculated at the current exchange rate of N.Rs. 16.00 = \$ 1.00.

+ Rounded to \$2,138,000.

B. AID Dollar Inputs

1. Technical Assistance

a.	Long-term, 36 person months	\$236,000
i.	24 person months for local hire Researcher/Education Systems Designer to work in the RED's Statistics and Research Sub-Branch (\$58,000/year)	(116,000)
ii.	12 person months for U.S. hire Instructional Materials Production Specialist to work in the RED's Curriculum and Textbook Materials Production Sub-Branch (\$10,000/month)	(120,000)
b.	Short-term, 25 person months	128,400
i.	1 person month for Instructional Materials Production Specialist (\$10,000/month)	(10,000)
ii.	9 person months for content specialists--English, mathematics and science (\$10,000/month)	(90,000)
iii.	3 person months for Nepali language Specialist (\$400/month)	(1,200)
iv.	4 person months for Asia Institute for Broadcast Development Instructors to train Radio Nepal Technicians (\$6,000/month)	(24,000)
v.	8 person months TA support for in-country RETT staff training (\$400/month)	(3,200)
	Sub-Total	<u>\$364,400</u>

2. Training

a.	16 semesters Stateside training for 3 MOEC and 1 CERID staff (\$10,000/ semester)	160,000
b.	16 person months for short-term U.S. training programs for RED staff (\$6,000/month)	96,000
c.	11 In-Country Workshops for Radio Nepal (2), RED (4) and RED cum Regional District Staffs (5) (\$15,000/workshop)	<u>165,000</u>
	Sub-Total	\$421,000

3. Research

a.	Support to the Statistics and Research Sub-Branch and CERID for preparation of data collection instru- ments, field research, and hiring of temporary staff	120,000
i.	Baseline Assessments and Research (CERID) (2 X \$20,000)	(40,000)
ii.	Ongoing Assessments (RED) (4 X \$10,000)	(40,000)
iii.	Special Studies (RED and/or CERID) (4 X \$10,000)	<u>(40,000)</u>
	Sub-Total	\$120,000

4. Evaluation

a.	Mid-project (January 1987) and final (fall 1989) external evaluations (2 X \$27,800)	<u>55,600</u>
	Sub-Total	\$ 55,600

5.	Supplementary Instructional Materials	
a.	In each of 4 content areas*	90,000
	Sub-Total	<u>\$ 90,000</u>
6.	Commodities	
a.	STL system for Radio Nepal (CIF) (see Annex 5)	50,000
b.	Equipment for RED including broad- cast tapes, spare parts, 3 motor- cycles, furniture for additional staff, etc. (see Annex 5)	100,000
c.	Radio sets (\$30 X 4,800)	144,000
	Sub-Total	<u>\$ 294,000</u>
	TOTAL	<u>\$1,345,000</u>
	Plus contingency @ 10% (to cover <u>inter alia</u> possible minor con- struction and project allowances)	134,500
	Inflation @ 6% compounded	139,200
	GRAND TOTAL AID	<u>\$1,618,700</u>

* Determination of exactly what kinds of interven-
tions are needed to support the broadcasts will
be made one year into the project, based on
research findings and first field trials.

C. GON Rupee Inputs

The figures below have been worked out based on an annual 10 percent increase in the annual GON budgets for the Division. This project will begin with the Nepali Fiscal year (NFY) 2041/42 which starts in mid-July 1984. The Division's current NFY 2040/41 (July 1983 - July 1984) budget and the details of estimated GON inputs into the project through NFY 2044/45 are given in Annex 6. Estimated GON inputs (2041/42 - 2044/45) are outlined below:

1. RED Operating Costs	
a. Salaries (includes 10 new permanent positions for RED)	NRs. 1,688,334
b. Allowances (includes 20% increase of salaries, dearness allowances, typist and accountant allowances)	516,055
c. Travel Allowance/Daily Allowance (This will complement TA/DA which will be provided by the project, primarily to the Research and Evaluation Section)	928,200
d. Service (includes postal and communication expenses and freight charges for books and radios)	130,000
e. Maintenance	70,000
f. Stationery	130,000
g. Books	38,000
h. Gasoline	116,000
i. Logistics	65,000
j. Contingency	38,000
k. Machinery	26,000
	<hr/>
Sub-Total	NRs. 3,745,589 (\$ 234,099)

2.	MOEC Field Operations	
a.	Salary for 75 Primary School Supervisors (half time)	1,503,684
b.	Salary for 10 Regional Directorate Supervisors (half time)	300,736
	Sub-Total	<u>NRs. 1,804,420</u> (\$ 112,776)
3.	Capital Improvement	
a.	Value of property on which RED annex/building will be located	355,191
b.	Building construction ^{1/}	480,000
	Sub-Total	<u>NRs. 835,191</u> (\$ 52,200)
	GRAND TOTAL GON	<u>NRs. 6,385,200</u> (\$399,075)

This GON portion of the budget (\$399,075) is adequate for the project. It represents about 19 percent of the total project budget or about 22 percent of the total excluding contingency and inflation and is indicative of the high value the GON attaches to radio education. However, since it is below the 25 percent required by the FAA, Section 110 (a), a waiver is being requested based on Nepal's status as a relatively least developed country (RLDC).

Recurring GON budget costs beyond NFY 2044/45 will be at approximately the annual levels indicated in Annex 6, minus capital improvement costs, and this will allow the RED to maintain the activities initiated by this project.

D. Peace Corps Inputs

Peace Corps/ Nepal will provide 12 Volunteer years to the project at an estimated per volunteer year cost of \$10,000; total \$120,000.

^{1/} This NRs. 480,000 is a contingent line item which may be applied to other agreed upon priorities, if funding for construction is met by the World Bank or if it is determined to be in the interest of the project to direct AID funds to this component.

TABLE 8

AID BUDGET: ALLOCATION BY CALENDAR YEAR
(\$ 000)

	1984	1985	1986	1987	1988
1a	20	196	-	-	-
1b	-	35.2	51.6	41.6	20
2a	160	-	-	-	-
2b	-	24	24	24	24
2c	-	90	60	15	-
3a	48	12	24	24	12
4a	-	-	-	27.8	27.8
5a	-	45	22.5	22.5	-
6a	50	-	-	-	-
6b	-	25	25	25	25
6c	-	30	89.5	16	8.5
CY Total	278	457.2	296.6	195.9	117.3
10% Contingency	27.8	45.7	29.7	19.6	11.7
	305.8	502.9	326.3	215.5	129
6% Inflation	0	30.2	39.2	38.8	31
CY Total	305.8	533.1	365.5	254.3	160

TABLE 9

COSTING OF PROJECT OUTPUTS/INPUTS

Project Inputs	Project Outputs*				TOTAL
	#1	#2	#3	#4	
1. AID					\$1,618,700
a. Technical Assistance		182,200		182,200	(364,400)
b. Training				421,000	(421,000)
c. Research	120,000				(120,000)
d. Evaluation	55,600				(55,600)
e. Supplementary Instructional Materials		90,000			(90,000)
f. Commodities			294,000		(294,000)
g. Contingency	17,560	27,220	29,400	60,320	(134,500)
h. Inflation	30,200	39,200	38,800	31,000	(139,200)
2. GON					399,075
a. RED Operating Costs	58,524	58,525	117,050		(234,099)
b. MOEC Field Operations			56,388	56,388	(112,776)
c. Capital Improvements			52,200		(52,200)
3. Peace Corps					
a. PCVs Provided				120,000	(120,000)
TOTAL	281,884	397,145	587,838	870,908	2,137,775 **

* For summary description of outputs see Annex 1-4.

** Rounded to \$2,138,000.

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PART V

IMPLEMENTATION, MONITORING AND EVALUATION

A. Implementation Plan

1. Workplan

Placement of permanent Radio Education Division staff will begin in mid-July 1984. The initial workplan will cover the NFY 2041/42 (mid-July 1984 - mid-July 1985). Development of this and all subsequent workplans and budgets will follow the standard GON trimester system, all releases of funds to be made in accordance with established USAID/GON procedures.

2. Project Schedule

<u>Date</u>	<u>Activity</u>
May 1984	- Completion of Project Paper (USAID/Nepal);*
	- Completion of 1983-84 RETT I production and broadcast cycle and testing of enrollees (RED);
	- Approval of Project Paper (GON and USAID/Nepal);
June 1984	- Signing of Grant Agreement (GON and USAID/Nepal);
June-July 1984	- Begin appointment of permanent staff members to RED, including RED Director (MOEC);
	- Selection of four long-term participants (MOEC and CERID);
	- Finalization of NFY 2041/42 RED workplan (MOEC);
	- Preparation of PIO/T (Project Implementation Order/Technical) and RFP (Request for Proposals) for work to be performed by U.S. contractor (USAID/Nepal);

* Organizations listed in parentheses are those with lead responsibilities.

<u>Date</u>	<u>Activity</u>
	- Order Radio Nepal and RED equipment (Radio Nepal, RED);
August- September 1984	- Departure of long-term participants (USAID/Nepal and GON);
	- Researcher/Education Systems Designer begins 24-month tour (local hire) (USAID/Nepal, MOEC);
	- Research workplans finalized under general direction of Project Research Committee, temporary research staff appointed, trial districts selected (CTSDC/RED and CERID);
	- Radio technician trainers (2) provide course for Radio Nepal technicians (Radio Nepal; AIBD);
	- Agreement on S&T/ED assistance (MOEC, AID/Washington, USAID/Nepal);
October- December 1984	- Beginning of 1984-1985 RETT I broadcast cycle (RED);
	- Negotiation, selection and signing of U.S. TA contract (MOEC, USAID/Nepal, AID/Washington);
	- Post-Tihar (November) visits to all trial research districts to select comparison groups, establish contacts, initiate research, etc. (RED, CERID);
January- February 1985	- Trial broadcasts in two subject areas (English and Nepali) (RED);
	- CY 1985 short-term U.S. training arranged (RED, U.S. Contractor);
	- Instructional Materials Production Specialist begins 12-month tour (MOEC, USAID/Nepal, U.S. Contractor);
	- Final decision on construction of extra workspace at RED building (MOEC, WB/UNICEF, USAID/Nepal);

<u>Date</u>	<u>Activity</u>
	- Radio Nepal equipment installed (Radio Nepal);
March-July 1985	- Final decision on broadcast scheduling and sequencing of courses (RED);
	- Support interventions revised as necessary (RED);
	- Finalization of NFY 2042/43 RED work-plan (MOEC);
	- Accretion of duties for selected Regional (2 X 5) and District (1 X 75) MOEC officials who will serve as RETT supervisors (MOEC);
	- Assignment of Peace Corps Volunteers (1 X 4) to work as counterparts to Regional Directorate RETT supervisors (MOEC, Peace Corps, USAID/Nepal);
	- S&T/ED long-term assistance to MOEC begins (tentatively, systems analyst), (MOEC, AID/Washington, AID/Nepal);
July-August 1985	- English and Nepali Specialists provide 2 months' TA with possible 1 month follow-up summer 1986 (RED, USAID/Nepal, U.S. Contractor for English specialist only);
	- Workshops for English and Nepali scriptwriters (RED);
August-September 1985	- Completion of 1984-85 RETT I broadcast and production cycle (RED);
	- Complete initial research and begin production of RETT II broadcasts and support interventions (RED, CERID);
	- Workshops for RED, regional and district staff in 2 or 3 of the regional centers (RED);

<u>Date</u>	<u>Activity</u>
	- Radio technician trainers (2) provide course for Radio Nepal technicians (Radio Nepal, AIBD);
October- November 1985	- Teachers enrolled (RED); - Initial distribution of radios (RED); - Beginning of 1985-86 RETT I and II broadcast and production cycle (RED);
December 1985- August 1986	- CY 1986 short-term U.S. training arranged (RED, U.S. Contractor); - Continuing preparation, field testing and production of broadcast programs (RED); - Ongoing assessment of program effectiveness (RED);
March- April 1986	- Instructional Materials Production Specialist ends 12-month tour (possibility of short-term follow-up work) (MOEC, USAID/Nepal, U.S. Contractor);
June-July 1986	- Return of four long-term participants and their assignment to CTSDC (3) and CERID (1), (AID and GON); - Completion-of-service and reassignment of new Volunteers to the project (MOEC, Peace Corps, USAID/Nepal); <u>1/</u> - Finalization of NFY 2043/44 RED workplan (MOEC);
July- August 1986	- Mathematics specialist provides 2 months' TA with possible 1-month follow-up summer 1987 (RED, USAID/Nepal, U.S. Contractor); - Workshop for scriptwriters, with emphasis on mathematics (RED);

1/ Per discussions with Peace Corps/Nepal staff, the first 4 PCVs to work on the project will be third year extendees; thus, they will likely be on this project for only one year.

<u>Date</u>	<u>Activity</u>
	- Begin preparation of third content area (mathematics) for Post-Tihar broadcasting (RED);
August- September 1986	- Completion of 1985-86 RETT I and II broadcast and production cycle (RED); - Workshops for RED regional and district staff in 2 or 3 regional centers (whichever weren't covered in 1985), (RED); - Research/Education Systems Designer ends 24-month tour (MOEC and USAID/Nepal);
October- November 1986	- Teachers enrolled (RED); - Distribution of radios (RED); - Beginning of 1986-87 RETT I and II broadcast and production cycle (RED); - Revise and reproduce materials for first two content areas as necessary (RED);
December 1986- August 1987	- CY 1987 short-term U.S. training arranged (RED and U.S. Contractor); - Continuing preparation, field testing and production of broadcast programs (RED);
January- February 1987	- Some of first year enrollees sit for SJC (MOEC); - Mid-project external evaluation (MOEC and USAID/Nepal);
June-July 1987	- Finalization of NFY 2044/45 RED work-plan (MOEC);
July- August 1987	- Science Specialist provides 2 months' TA with possible 1-month follow-up summer 1988 (RED, USAID/Nepal, U.S. Contractor); - Workshop for scriptwriters, with emphasis on science (RED);

<u>Date</u>	<u>Activity</u>
	- Begin preparation of broadcasts and materials for cycle to begin after Tihar (RED);
August- September 1987	- Completion of 1986-87 RETT I and II broadcast and production cycle in methodology and three content areas (RED);
October- November 1987	- Teachers enrolled (RED); - Distribution of radios (RED); - Beginning of 1987-88 RETT I and II broadcast and production cycle (RED); - Revise and reproduce materials for third content area as necessary (RED);
December 1987- August 1988	- CY 1988 short-term U.S. training arranged (RED, U.S. Contractor); - Continuing preparation, field testing and production of broadcast programs (RED);
June-July 1988	- AID support to RED ends (USAID/Nepal); - Completion-of-service for Peace Corps Volunteers (PC); - Finalization of NFY 2045/46 RED work-plan (MOEC);
August- September 1988	- Completion of 1987-88 RETT I and II broadcast and production cycle (RED);
October- November 1988	- Teachers enrolled (RED); - Distribution of radios (RED); - Beginning of 1988-89 RETT I and II broadcast and production cycle (RED); - Revise and reproduce materials for fourth content area (science) as necessary (RED); - Planning for follow-on activities (MOEC);
Fall 1989	- Conduct final external evaluation (MOEC and USAID/Nepal).

3. Procurement and Contracting

Procurement of all equipment under the project will be undertaken by the Project Manager (RED Director) and the Chief Engineer, Radio Nepal, upon issuance of appropriate Project Implementation Letters (PILs) by AID/Nepal. All details of commodities to be purchased are contained in Annex 5.

AID/Nepal, in consultation with the CTSDC Chief and the Project Manager, will attempt to hire an American locally for the Researcher/Education Systems Designer position. Candidates will be interviewed by AID/Nepal and MOEC officials and a non-Personal Services Contract will be let by USAID/Nepal once a candidate has been selected.

A contract with a university or other education institution, including for-profit private firms, with previous experience in radio education and distance teaching will be let to provide for the long-term (one year) Instructional Materials Production Specialist, short-term TA and external short-term training. Minority and women-owned enterprises, historically black colleges and universities and small businesses will be accorded preference in the contracting process. The support contractor will not be responsible for external evaluation, local project expenditures or long-term training. (The latter will be handled by the MOEC, USAID/Nepal and AID/Washington's Office of International Training or one of its contractors.)

In addition, Peace Corps will be responsible for placement of four PCVs at the outlying Regional Development Centers (not Kathmandu) and S&T/ED will be responsible for the parallel component to strengthen analytic capacities of the MOEC through the existing S&T/ED support contract for improving the efficiency of education systems.

4. Methods of Implementation and Financing

- a. The following information is provided per the Payment Verification Policy Implementation Guidance dated December 30, 1983 and the Mission Financing Policy and Procedures Assessment dated March 22, 1984:

TABLE 10

METHODS OF IMPLEMENTATION AND FINANCING

Method of Implementation	Method of Financing	Approximate Amount
TA-Profit-making contractor or educational institute	Direct Pay	316,000
TA-Non-Personal Services Contract	Direct Pay	116,000
Commodities-GON Procurement	Direct Pay	294,000
Participant Training-placed by S&T/OIT	Direct Pay	160,000
Sector Assistance - MOEC	Direct Pay	459,000
i. Workshops, local		(193,400)
ii. Research		(120,000)
iii. Evaluation		(55,600)
iv. Instructional Materials		(90,000)
	Sub-Total	1,345,000
	Contingency (10%)	134,500
	Inflation (6%)	139,200
	TOTAL AID	1,618,700

- b. There are no financing methods indicated which need justification, per AID/Washington guidance.
- c. GON contracting and commodity procurement procedures follow competitive procedures acceptable to USAID/Nepal.

B. Monitoring Plan

Monitoring of the project will be carried out by the USAID/Nepal Project and Alternate Project Officers or by other members of the Mission's Project Committee, as appropriate. Annual workplans will be reviewed in consultation with the Project Manager and, once agreed upon, progress will be measured primarily against this document. Project Officer visits to the Sano Thimi RED office will be made regularly and occasional field visits will be undertaken, in order to review project activities/progress at the regional, district and teacher levels. An annual progress report, submitted by the MOEC at the end of each NFY, will form the basis for a formal yearly project review. The Project Officer will coordinate necessary follow-up with the Project Manager, RED. Regular consultation with the Chief of the CTSDC as well as with TA contractors and Peace Corps Volunteers will also form a part of the monitoring process. Research and Contractor reports will provide additional useful management information, as will monitoring of the actual radio broadcasts.

C. Evaluation Plan

As indicated above, the project or more specifically the RED's Statistics and Research Sub-Branch, will conduct extensive formative assessment throughout, but especially during the first year of the project. Internal evaluation and revision will be conducted annually by RED following the completion of each broadcast year. In addition, two (2) external evaluations are planned; one midway through the project in January or February 1987 (shortly after the start of the second broadcast year) and another upon completion of the project in late 1989 (CY). The mid-project evaluation will focus primarily on the specific objectives which will have been developed for the Nepali fiscal years 2041/42 and 2042/43, to determine if workplans are being effectively developed and implemented in terms of overall project purposes and to make recommendations based on progress to date. The final evaluation will review project achievement of stated goal and purposes and make recommendations to the MOEC for the improvement/expansion of radio-based education and training, in light of lessons learned.

D. Audit Plan

The ongoing project may be audited by the AID/Inspector General (AID/IG), and it will also be possible for

AID/Nepal's Financial Management staff to conduct during the life of the project a limited financial review, if deemed necessary. A Stateside post-contract audit of U.S. direct contractors may also be conducted by the Defense Contract Audit Agency (DCAA).

Project funds have not been budgeted for these activities, since no third party will be called upon to carry out any of these audits.

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PART VI

COVENANTS AND CONDITIONS

A. Covenants

1. When the MOEC develops other in-service primary teacher training components, e.g., campus-based training, workshops, etc., it will be necessary to incorporate all such upgrading activities (including RETT I and II) into a logical, overall system with defined procedures with respect to salary and certification. While project implementation will be able to move ahead without further articulation of an overall plan, this issue will be addressed and a covenant to this effect will be included in the Grant Agreement.
2. The Agreement will also include a covenant that the Project Manager (RED Director) will provide USAID/Nepal with a detailed project progress report in English at the end of each Nepali fiscal year during the life of the project, i.e., July of 1985, 1986, 1987, and 1988.
3. Further, a covenant will be included to the effect that Radio Nepal will assure highest possible quality, nationwide transmission of RETT I and II programs upon installation of equipment to be purchased under this project.
4. Lastly, the Agreement will include a covenant that the MOEC will maintain the 46 permanent RED positions which are also the subject of a condition precedent.

B. Conditions Precedent

1. The Grant Agreement will stipulate that, prior to the release of second trimester (November 1984) AID funds to the GON, the MOEC will have established and filled 46 permanent positions within the Radio Education Division. These positions will be in addition to any temporary positions which may be continued at the discretion of the MOEC (see page 19, Table 4).
2. The Grant Agreement will also state that second trimester releases to the GON (November 1984) will depend upon USAID/Nepal having received firm nominations for the four (4) long-term participant positions (see page 23-25, Part II).

3. A final condition precedent will make distribution and sale of project-purchased radios contingent on the GON having established a special project account, so that proceeds from the sale of the radios may be used for purchase of additional radios or for support of other RED activities, as may be agreed upon between the MOEC and USAID/Nepal.

ANNEX 1

**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

AIC 1020-28 (7-71)
SUPPLEMENT 1

(INSTRUCTION: THIS IS AN OPTIONAL FORM WHICH CAN BE USED AS AN AID TO ORGANIZING DATA FOR THE PAR REPORT. IT NEED NOT BE RETAINED OR SUBMITTED.)

Life of Project:
From FY 1984 to FY 1989
Total U.S. Funding \$1.619 Million
Date Prepared: May 18, 1984

Project Title & Number: Radio Education Teacher Training II, # 367-0146

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>1. To increase the access of children to relevant, effective primary education.</p>	<p>Measures of Goal Achievement:</p> <p>1. An increase in the percentage of children attending school and completing grades 1-5.</p> <p>1a. A reduction in the number of dropouts and repeaters.</p> <p>1b. Further increase in the rural literacy rate.</p>	<p>1. MOEC enrollment and retention register.</p> <p>1a. MOEC enrollment and retention register.</p> <p>1b. MOEC statistics.</p>	<p>Assumptions for achieving goal targets:</p> <p>1. Expansion of primary enrollment in rural areas is not limited by the availability of trained teachers.</p> <p>1a. There is a relationship between dropout, repetition, completion rates and teacher skills.</p> <p>1b. Increased subject content knowledge will result in improved primary classroom teaching.</p>

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**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

AID 1029-26 (7-71)
SUPPLEMENT 1

Life of Project:
From FY 1984 to FY 1989
Total U.S. Funding \$1,619 Million
Date Prepared: May 18, 1984

Project Title & Number: Radio Education Teacher Training II, # 367-0146

PAGE 2

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <ol style="list-style-type: none"> 1. To improve the knowledge and skills of under SLC primary teachers through radio-based in-service training. 2. To create within the CTSDC's RED the capability to design, test, implement and internally evaluate a wide variety of radio education teacher training activities. 3. To reinforce ongoing GON/AID activities in rural development, resource conservation, and health/family planning by introducing elements into the radio curricula which will enable the enrolled teachers, as well as a larger listening audience, to benefit from these development programs. 	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> 1. Not less than 6,000 primary grade teachers at the under SLC level will have received radio-based content training. 1a. Yearly increases in the number of enrolled primary teachers who sit for and pass the SLC examinations. 2. CTSDC and CERID are fully staffed and funded to conduct radio education research and provide policy guidance. 3. Each of the approximately 750 hour-long broadcast tapes will include a "development" component which will have more listeners than just the enrolled teachers. 	<ol style="list-style-type: none"> 1. RED records. 1a. MOEC Examination Unit records. 2. MOEC and TU records and project evaluation reports. 3. RED records. 	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> 1. Teaching capability will improve with content training. 1a. Under SLC teachers will be motivated to enroll and follow radio lessons, and upon completion of radio lessons will be motivated to sit for SLC examinations. 1b. Those teachers who pass the SLC will continue to teach. 2. The MOEC will remain committed to radio education teacher training. 2a. RETT I will continue to broadcast along with RETT II. 2b. Funds are available to RED from MOEC through IDA or other sources to expand workspace at Sano Thimi. 2c. Staff can be released as needed for short-term and long-term training. 3. GON commitment to the development of radio-based training and education will continue. 3a. There is a large listening audience, beyond the enrolled teachers.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

AID 1980-28 (7-71)
SUPPLEMENT I

Life of Project: _____
From FY 1984 to FY 1989
Total U.S. Funding \$1,619 Million
Date Prepared: May 18, 1984

Project Title & Number: Radio Education Teacher Training II, # 367-0146

PAGE 2

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <p>4. To upgrade the overall education research capabilities of the MOEC and CERID, so that future activities may be based on more reliable data and systematic analysis of radio education and other distance teaching projects or rural education reforms.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>4. The RED will continue after the project to be managed, staffed and funded at levels at least approximate to those indicated for the LOP period.</p>	<p>4. Project evaluation and MOEC records.</p>	<p>Assumptions for achieving purpose:</p> <p>4. Long-term participants return to positions in MOEC and CERID.</p> <p>4a. Centrally funded component available to further strengthen MOEC/CTSDC and CERID.</p>

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**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

AND 1080-02 (7-71)
SUPPLEMENT I

Project Title & Number: Radio Education Teacher Training II, # 367-0146

Life of Project:
From FY 1984 to FY 1989
Total U.S. Funding \$1,619 Million
Date Prepared: May 18, 1984

PAGE 3

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	Magnitude of Outputs:		Assumptions for achieving outputs:
1. Extensive radio-based teacher training research completed.	1. Research on two priority design issues and pilot testing in 3 trial areas will be completed in first year of project and formative assessment maintained throughout the project.	1. RED's project records.	2. Introduction of new content will be phased to allow orderly production in each content area according to a planned curriculum sequence, at acceptable quality and allowing for unit revisions and reproductions as needed.
2. Broadcast programs developed.	2. At least 750 hour-long broadcast tapes will be prepared, covering 4 content areas: mathematics, science, English and Nepali.	2. RED's project records.	3. Radio Nepal will be able to broadcast a clear, nationwide signal.
3. Broadcast programs aired on a regular schedule.	3. At least 250 hour-long programs will be aired on Radio Nepal during each of the last 3 years of project.	3. RED's project records.	
4. RED and CERID trained to carry on teacher training program.	4. At least 171 person months of training provided.	4. RED's project records.	

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY 1984 to FY 1989
Total U.S. Funding \$1,619 Million
Date Prepared: May 18, 1984

AID 1980-88 (7-71)
SUPPLEMENT 1

Project Title & Number: Radio Education Teacher Training II, # 367-0146

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs:	Implementation Target (Type and Quantity)		Assumptions for providing inputs:
<u>USAID/Nepal:</u>			
1. Technical Assistance (61 person months)	\$ 364,400	1. RED, USAID Controller and Contractor financial records.	1. Appropriate technical assistance personnel will be available.
2. Training (171 person months)	421,000.	2. RED, USAID Controller and Contractor financial records.	2. Qualified participants will be available.
3. Research	120,000	3. RED and USAID Controller financial records.	3. CERID and RED establish effective research coordination.
4. Evaluation	55,600	4. RED and USAID Controller financial records.	4. Materials developed for each of 4 content areas.
5. Supplementary Instructional Materials	90,000	5. RED and USAID Controller financial records.	5. Commodities will be delivered in a timely manner.
6. Commodities	294,000		
Total Line Items	1,345,000		
Contingency (10%)	134,500		
Inflation (6%)	139,200		
AID TOTAL	\$1,618,700		
<u>GON:</u>			
1. RED Operating Costs	234,099	1. RED records.	
2. MOEC Field Operations	112,776	2. MOEC records.	
3. Capital Improvements	52,200	3. MOEC records.	
GON TOTAL	\$ 399,075		
<u>PEACE CORPS:</u>			
1. Volunteer Support (12 volunteer years)	120,000		
PEACE CORPS TOTAL	\$ 120,000		
<u>S&T/ED (AID/Washington)</u>			
(1. Technical Assistance	300,000	1. RED and USAID Controller records.)	
(2. External Travel	20,000	2. RED and USAID Controller records.)	
(3. In-Country activities	180,000	3. RED and USAID Controller records.)	
S&T/ED TOTAL	\$ 500,000		

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A N N E X 2

ECONOMIC AND SOCIAL ANALYSES

A. Economic Analysis

One of the most common economic analysis approaches is cost-benefit analysis. However, where the benefits are not immediately economic units and may not be economically measurable, the comprehensiveness of a cost-benefit analysis is greatly diminished. In RETT, many of the education benefits are non-economic and not readily measured in quantifiable terms. As an alternative, a least-cost approach has been utilized wherein the cost of the project is compared to an alternative method of project implementation--in this case a campus-based training program. As both programs are currently in existence in Nepal we are able to compare actual costs.^{1/}

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3. The capital investments which may be required for expanded facilities at either the teacher training campuses or at the radio broadcasting station will have a sufficiently long life as to cause no appreciable change in the cost comparisons below.

TABLE 1

Campus-Based Training Costs

<u>GON Expenses</u>	<u>1982 Costs/Student (NRs.)</u>
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Total/student/year NRs. 10,233	

TABLE 2

RETT-Based Training Costs

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As can be seen, a major part of the difference in cost is the salary of a substitute teacher and living costs for the trainee. The least expensive method, annual cost per student basis, is RETT-type training. Utilizing radio, the teaching skills of 10 students can be upgraded over a given period for the cost of one student's campus-based training.

A key assumption is that the two approaches are comparably effective. This appears to be the case, as RETT I participants achieved a 40% pass rate on the teacher competence examination, about the same as campus-based students.

However, to achieve comparable quality and amounts of training through RETT, as acquired through campus-based training, would reduce the cost advantage for RETT training. The GON may wish to consider utilizing the alternative of campus-based training for additional students as sufficient time, recurrent budget and capital resources become available, for while we cannot quantify the quality differences, it would be shortsighted to accept both programs as being equal. The RETT II project will include a variety of interventions in an attempt to compensate for reduced time and other intangible quality factors.

The per hour cost of training for each individual student is between seven and perhaps 10 rupees for campus and four for RETT. There are approximately 1440 hours of classroom time annually per student in the campus program whereas the RETT program entails 250 hours of training annually. However, some of the 1440 hours is supervised practice and other "non-instruction" hours, while all 250 hours of RETT are instruction.

Thus, the campus-based training is about 10 times the RETT cost per student year and at least twice the cost per instruction hour per student. However, it provides almost six times as much instruction, presumably with increased effect on quality and content learning. Excluding consideration of any quality compensating interventions, RETT is the least-cost approach, particularly given the comparable pass rates. Whether it is the more cost-effective approach depends on whether there are qualitative advantages to campus-based training which are not measured by the examination, and the

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a. Beneficiaries

The direct beneficiaries of this project will be the under SLC pass primary school teachers. This training will greatly enhance their chances

of passing the SLC examinations,^{1/} the SLC being widely regarded as a basic educational qualification. An additional incentive to enroll will be the increase in salary which comes with passing the SLC.

These targeted teachers have received little more formal education than their students. Most have not gone beyond the eighth grade and some have not even gotten that far. As a result, they are often very weak in their knowledge of course content. The results are reflected in evaluations which show low levels of pupil comprehension, high repeater and drop-out rates and sub-standard preparedness for entrance into secondary school.

This project is national in scope and is expected to reach not less than 6,000 teachers in 75 districts across the country. These primary school teachers represent a broad spectrum of ethnic, caste and linguistic groups. Most live and work in remote and isolated regions, inaccessible by road.

Teachers will be able to take advantage of the training without the cost or social disruption of temporarily moving elsewhere for training. Those teachers who successfully complete the training and pass the SLC examination will receive the MOEC's standard pay increase for SLC pass vs. non pass teachers (at present a difference of Rs. 45.00/month) plus the security and satisfaction of having a secondary school certificate.

Secondary project beneficiaries will include:
(i) rural school children who receive the benefits of improved teacher performance;

^{1/} This is particularly true since enrolled primary school teachers will be able to take the SLC in parts, i.e., once having passed a subject they won't have to take an examination in that subject again. Other SLC repeat candidates will have to sit for all parts of the examination, even for those subjects they passed in earlier year(s).

(ii) a general listening audience which will gain directly from the broadcasts, especially the "development broadcast" segments; (iii) communities which benefit indirectly from the better-informed and trained community resource person--the primary school teacher; and (iv) secondary school students who will be able to supplement their regular classroom learning by listening to the broadcasts. Eventually, RETT II may evolve into a direct broadcast program for SLC, serving a wider audience than teachers.

b. Spread Effects

Within the education sector, radio education is well established as a training mechanism. As an official MOEC policy, all primary teacher training is now undertaken only through RETT, with the exception of the UNICEF/MOEC Seti Zone and the recently approved World Bank projects which use the cluster school concept and the UNICEF/MOEC Equal Access to Education for Women project. The participants of the UNICEF projects will be encouraged to participate in the RETT I program to supplement their training, and they will be encouraged to enroll in RETT II as well. Collaboration with the World Bank project is already being worked out.

The interdisciplinary effect of the RETT I project can be measured to some extent by the popular non-formal education "magazine" section which provides information on relevant development initiatives in health, sanitation, family planning, women's legal rights, agriculture, etc. This component will be strengthened in RETT II.

Developing radio as a cost-effective tool can have broad implications for other sectors, such as agricultural extension and health and nutrition education. The additional radio broadcasting equipment to be provided under RETT II will enable Radio Nepal to broadcast on two channels simultaneously using different transmitters. This will effectively double the broadcast time which Radio Nepal will have available for development-oriented programs.

c. Non-formal Education Development Issues

The culture of primary schools is strongly traditional and reflects local community values. Teachers are often community leaders with the potential for using their positions to influence community development. Unfortunately, their very limited educational background often inhibits their effectiveness. The increased knowledge and support offered to them by this project should help to strengthen their general effectiveness as community leaders.

Participating teachers should become more competent in specific subject areas and more aware of rural development issues and information through the non-formal education section of the broadcast. The RETT I radio has a large listening audience, roughly 42 percent of the radio-listening public. RETT I "magazine" scripts include the following subject areas: literacy, population education, resource conservation, women's education, health education, children's literature and general knowledge (includes programs on Nepali holidays and culture), history, news in the world of science, and "things teachers should know." The researchers for the RETT I evaluation noted, however, that "many, probably a fairly large majority of the rural radio listeners would have difficulty in understanding the magazine show's programs because of the level and style of language used ... the concepts being presented are often too sophisticated for the rural audience they are supposed to reach." This finding argues for better targeted programming in RETT II as well as careful attention to field-testing and feedback on programs.

d. Women's Issues

Women are under-represented throughout the entire education system in Nepal. Although approximately 67 percent of the school age population (6-15 years olds) is enrolled in school, only 27.6 percent of those in the primary grades is female. This figure falls to 20 percent at the lower secondary and

eight percent at the secondary level. Thus, approximately one school age girl in four is enrolled. Actual attendance rates are presumably lower. Girls generally are needed at home to look after younger siblings, tend animals, and help with household chores like gathering wood and carrying water. Acharya and Bennett (1981) report that in eight representative districts in Nepal girls aged 5-8 work 3.39 hours per day and girls aged 10-14 work 7.31 hours per day, which is 50 percent more hours of work than for boys in the same age groups.

Even when girls are enrolled in school, their attendance is often sporadic and they frequently bring their younger siblings with them. This situation makes it difficult for teachers to organize their instruction and for girls to perform well in classroom activities. The RETT I final evaluation found that in parts of the country girls are seen clustered in the back of the classroom with their younger siblings, shyly watching the teacher and leafing through their textbooks with little or no involvement in the classroom instruction.

The lack of educated women contributes to the low representation of women in the teaching profession. Of the estimated 6,000 untrained under SLC pass teachers targeted by the RETT I project, only 361 were women, approximately four percent (Planning Division, Statistics Section, MOEC, 1981). This is somewhat surprising since interviews with village parents and teachers suggest that this job would be an acceptable one for women within the village community (AID Project Impact Evaluation Report No. 19, U.S. Aid to Education in Nepal: a 20-year Beginning). Teaching would even be an acceptable job for unmarried girls since they could usually live in their own homes and teach in a primary school nearby.

The Mission is planning an FY 1985 female education project to address this problem directly, RETT II is not able to do so, either with respect to the low representation

of women teachers or to the low enrollment of girls in the education system. However, there are three ways in which RETT II will have an impact on women's status in education:

i. Training and Monetary Support

All untrained under SLC pass women teachers will be enrolled in RETT II. Assuming they pass the SLC they will receive a salary increase of Rs. 45.00 per month. Although small, this will provide some additional income and, perhaps of more significance, will confer on them the status and competitive edge which comes from holding the certificate. Since RETT I and II will be readily available to all untrained under SLC teachers at no cost to local schools, management committees may also be willing to hire more under SLC women to teach in their primary schools, relying on these programs for upgrading.

ii. Integration of Women's Programming

RED will integrate women's programming into the broadcasts. Women characters will be portrayed in a strongly positive way. Hearing women acting in the roles of teachers and teacher trainers will provide enrolled female teachers and other women listeners a chance to imagine themselves working in these situations and to establish career objectives compatible with these higher level aspirations.

Twenty-four RETT I programs were developed specifically for women, emphasizing the importance of literacy for women in Nepal (now estimated at 12 percent). For example, a broadcast was developed on teacher/guardian relationships, including a special section on recruiting girl students and how to convince guardians to send their girls to school and to keep

them in school. Also, a unit on classroom management techniques included special ideas to encourage girls to participate more actively in the classroom. Such programming will be strengthened and expanded in RETT II.

It is difficult to separate by sex the programming benefits in agriculture, resource conservation, health and nutrition. However, since girls are primarily responsible for these activities in their homes, such materials may be of most benefit to them.

iii. Trained Teachers as Role Models for Girls and Women

The lack of female teachers at the primary and secondary level may be an important factor in maintaining traditional parental attitudes towards educating daughters. Recent research indicates no strong deterrents for community acceptance of female teachers, and increasing the proportion of women teachers was viewed by 16 percent of surveyed teachers in six (6) districts as an effective way of increasing female school participation (Sellar, et. al.). Teacher and school enrollment data tend to confirm the relationship between the percentage of teachers who are women and the percentage of students who are female. If this is correct, RETT I and II should help to increase female enrollment.

e. Effecting School Participation

In Nepal as in other countries, an important factor related to school participation is school quality and relevance, particularly in rural areas. In the relatively few studies of determinants of school leaving behavior in developing countries, poor quality of teachers has emerged as a main reason for students dropping out.

The quality of facilities and teaching materials, the relevance of the curriculum to local needs and the skills of the teachers may all contribute to low enrollments of both girls and boys. In describing rural schooling, the RETT I final evaluation reported that "often classes are overcrowded, especially the first grade where students often spend two years. A blackboard and chalk tend to be standard fare but adequate benches, writing places and other materials are a luxury." A recent study of 120 schools in 23 villages conducted by CERID reports that 45 percent of the schools had fewer classrooms than needed for the number of students enrolled. Instructional materials were also found to be insufficient, with 32 percent of primary schools lacking general materials such as chalk, board and erasers and 72 percent of primary schools lacking such materials as charts and maps. The quality of teaching staff was also poor; about one-third of the teachers were found to be underqualified for the level they were teaching. Both quality of instructional materials and quality of teachers were found to have positive effects on child school participation (CERID, 1983). Thus, while this project will not provide any materials for the classroom, it is expected that teachers will improve their qualifications as a result of the project and that in the long run, this will positively effect participation of boys as well as girls.

**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

AID 1420-26 (7-71)
SUPPLEMENT 1

Life of Project:
From FY 1984 to FY 1989
Total U.S. Funding \$1,619 Million
Date Prepared: MAY 18, 1984

Project Title & Number: Radio Education Teacher Training II, # 367-0146

PAGE 2

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <ol style="list-style-type: none"> 1. To improve the knowledge and skills of under SLC primary teachers through radio-based in-service training. 2. To create within the CTSDC's RED the capability to design, test, implement and internally evaluate a wide variety of radio education teacher training activities. 3. To reinforce ongoing GON/AID activities in rural development, resource conservation, and health/family planning by introducing elements into the radio curricula which will enable the enrolled teachers, as well as a larger listening audience, to benefit from these development programs. 	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> 1. Not less than 6,000 primary grade teachers at the under SLC level will have received radio-based content training. 1a. Yearly increases in the number of enrolled primary teachers who sit for and pass the SLC examinations. 2. CTSDC and CERID are fully staffed and funded to conduct radio education research and provide policy guidance. 3. Each of the approximately 750 hour-long broadcast tapes will include a "development" component which will have more listeners than just the enrolled teachers. 	<ol style="list-style-type: none"> 1. RED records. 1a. MOEC Examination Unit records. 2. MOEC and TU records and project evaluation reports. 3. RED records. 	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> 1. Teaching capability will improve with content training. 1a. Under SLC teachers will be motivated to enroll and follow radio lessons, and upon completion of radio lessons will be motivated to sit for SLC examinations. 1b. Those teachers who pass the SLC will continue to teach. 2. The MOEC will remain committed to radio education teacher training. 2a. RETT I will continue to broadcast along with RETT II. 2b. Funds are available to RED from MOEC through IDA or other sources to expand workspace at Sano Thimi. 2c. Staff can be released as needed for short-term and long-term training. 3. GON commitment to the development of radio-based training and education will continue. 3a. There is a large listening audience, beyond the enrolled teachers.

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A N N E X 1

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

AIC 1020-26 (7-71)
SUPPLEMENT 1

(INSTRUCTION: THIS IS AN OPTIONAL FORM WHICH CAN BE USED AS AN AID TO ORGANIZING DATA FOR THE PAR REPORT. IT NEED NOT BE RETAINED OR SUBMITTED.)

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From FY 1984 to FY 1989
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PAGE 1

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>1. To increase the access of children to relevant, effective primary education.</p>	<p>Measures of Goal Achievement:</p> <p>1. An increase in the percentage of children attending school and completing grades 1-5.</p> <p>a. A reduction in the number of dropouts and repeaters.</p> <p>b. Further increase in the rural literacy rate.</p>	<p>1. MOEC enrollment and retention register.</p> <p>1a. MOEC enrollment and retention register.</p> <p>1b. MOEC statistics.</p>	<p>Assumptions for achieving goal targets:</p> <p>1. Expansion of primary enrollment in rural areas is not limited by the availability of trained teachers.</p> <p>1a. There is a relationship between dropout, repetition, completion rates and teacher skills.</p> <p>1b. Increased subject content knowledge will result in improved primary classroom teaching.</p>

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PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

AID 1020-20 (7-71)
SUPPLEMENT 1

Life of Project:
From FY 1984 to FY 1989
Total U.S. Funding \$1,619 Million
Date Prepared: MAY 18, 1984

Project Title & Number: Radio Education Teacher Training II, # 367-0146

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <p>4. To upgrade the overall education research capabilities of the MOEC and CERID, so that future activities may be based on more reliable data and systematic analysis of radio education and other distance teaching projects or rural education reforms.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>4. The RED will continue after the project to be managed, staffed and funded at levels at least approximate to those indicated for the LOP period.</p>	<p>4. Project evaluation and MOEC records.</p>	<p>Assumptions for achieving purpose:</p> <p>4. Long-term participants return to positions in MOEC and CERID.</p> <p>4a. Centrally funded component available to further strengthen MOEC/CTSDC and CERID.</p>

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**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

Life of Project: _____
 From FY 1984 to FY 1989
 Total U.S. Funding \$1,619 Million
 Date Prepared: MAY 16, 1984

AND 1420-28 (7-71)
 SUPPLEMENT 1

Project Title & Number: Radio Education Teacher Training II, # 367-0146

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<i>Outputs:</i>	<i>Magnitude of Output:</i>		<i>Assumptions for achieving outputs:</i>
1. Extensive radio-based teacher training research completed.	1. Research on two priority design issues and pilot testing in 3 trial areas will be completed in first year of project and formative assessment maintained throughout the project.	1. RED's project records.	
2. Broadcast programs developed.	2. At least 750 hour-long broadcast tapes will be prepared, covering 4 content areas: mathematics, science, English and Nepali.	2. RED's project records.	2. Introduction of new content will be phased to allow orderly production in each content area according to a planned curriculum sequence, at acceptable quality and allowing for unit revisions and reproductions as needed.
3. Broadcast programs aired on a regular schedule.	3. At least 250 hour-long programs will be aired on Radio Nepal during each of the last 3 years of project.	3. RED's project records.	3. Radio Nepal will be able to broadcast a clear, nationwide signal.
4. RED and CERID trained to carry on teacher training program.	4. At least 171 person months of training provided.	4. RED's project records.	

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PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

AID 1982-28 (7-71)
SUPPLEMENT 1

Life of Project: _____
From FY 1984 to FY 1989
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Date Prepared: May 18, 1984

Project Title & Number: Radio Education Teacher Training II, # 367-0146

PAGE 4

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<u>Inputs:</u>	Implementation Target (Type and Quantity)		Assumptions for providing inputs:
USAID/Nepal:			
1. Technical Assistance (61 person months)	\$ 364,400	1. RED, USAID Controller and Contractor financial records.	1. Appropriate technical assistance personnel will be available.
2. Training (171 person months)	421,000.	2. RED, USAID Controller and Contractor financial records.	2. Qualified participants will be available.
3. Research	120,000	3. RED and USAID Controller financial records.	3. CERID and RED establish effective research coordination.
4. Evaluation	55,600	4. RED and USAID Controller financial records.	4. Materials developed for each of 4 content areas.
5. Supplementary Instructional Materials	90,000	5. RED and USAID Controller financial records.	5. Commodities will be delivered in a timely manner.
6. Commodities	294,000		
Total Line Items	1,345,000		
Contingency (10%)	134,500		
Inflation (6%)	139,200		
AID TOTAL	\$1,618,700		
<u>GON:</u>			
1. RED Operating Costs	234,099	1. RED records.	
2. MOEC Field Operations	112,776	2. MOEC records.	
3. Capital Improvements	52,200	3. MOEC records.	
GON TOTAL	\$ 399,075		
<u>PEACE CORPS:</u>			
1. Volunteer Support (12 volunteer years)	120,000		
PEACE CORPS TOTAL	\$ 120,000		
<u>S&T/ED (AID/Washington)</u>			
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of passing the SLC examinations,^{1/} the SLC being widely regarded as a basic educational qualification. An additional incentive to enroll will be the increase in salary which comes with passing the SLC.

These targeted teachers have received little more formal education than their students. Most have not gone beyond the eighth grade and some have not even gotten that far. As a result, they are often very weak in their knowledge of course content. The results are reflected in evaluations which show low levels of pupil comprehension, high repeater and drop-out rates and sub-standard preparedness for entrance into secondary school.

This project is national in scope and is expected to reach not less than 6,000 teachers in 75 districts across the country. These primary school teachers represent a broad spectrum of ethnic, caste and linguistic groups. Most live and work in remote and isolated regions, inaccessible by road.

Teachers will be able to take advantage of the training without the cost or social disruption of temporarily moving elsewhere for training. Those teachers who successfully complete the training and pass the SLC examination will receive the MOEC's standard pay increase for SLC pass vs. non pass teachers (at present a difference of Rs. 45.00/month) plus the security and satisfaction of having a secondary school certificate.

Secondary project beneficiaries will include:
(i) rural school children who receive the benefits of improved teacher performance;

^{1/} This is particularly true since enrolled primary school teachers will be able to take the SLC in parts, i.e., once having passed a subject they won't have to take an examination in that subject again. Other SLC repeat candidates will have to sit for all parts of the examination, even for those subjects they passed in earlier year(s).

(ii) a general listening audience which will gain directly from the broadcasts, especially the "development broadcast" segments; (iii) communities which benefit indirectly from the better-informed and trained community resource person--the primary school teacher; and (iv) secondary school students who will be able to supplement their regular classroom learning by listening to the broadcasts. Eventually, RETT II may evolve into a direct broadcast program for SLC, serving a wider audience than teachers.

b. Spread Effects

Within the education sector, radio education is well established as a training mechanism. As an official MOEC policy, all primary teacher training is now undertaken only through RETT, with the exception of the UNICEF/MOEC Seti Zone and the recently approved World Bank projects which use the cluster school concept and the UNICEF/MOEC Equal Access to Education for Women project. The participants of the UNICEF projects will be encouraged to participate in the RETT I program to supplement their training, and they will be encouraged to enroll in RETT II as well. Collaboration with the World Bank project is already being worked out.

The interdisciplinary effect of the RETT I project can be measured to some extent by the popular non-formal education "magazine" section which provides information on relevant development initiatives in health, sanitation, family planning, women's legal rights, agriculture, etc. This component will be strengthened in RETT II.

Developing radio as a cost-effective tool can have broad implications for other sectors, such as agricultural extension and health and nutrition education. The additional radio broadcasting equipment to be provided under RETT II will enable Radio Nepal to broadcast on two channels simultaneously using different transmitters. This will effectively double the broadcast time which Radio Nepal will have available for development-oriented programs.

c. Non-formal Education Development Issues

The culture of primary schools is strongly traditional and reflects local community values. Teachers are often community leaders with the potential for using their positions to influence community development. Unfortunately, their very limited educational background often inhibits their effectiveness. The increased knowledge and support offered to them by this project should help to strengthen their general effectiveness as community leaders.

Participating teachers should become more competent in specific subject areas and more aware of rural development issues and information through the non-formal education section of the broadcast. The RETT I radio has a large listening audience, roughly 42 percent of the radio-listening public. RETT I "magazine" scripts include the following subject areas: literacy, population education, resource conservation, women's education, health education, children's literature and general knowledge (includes programs on Nepali holidays and culture), history, news in the world of science, and "things teachers should know." The researchers for the RETT I evaluation noted, however, that "many, probably a fairly large majority of the rural radio listeners would have difficulty in understanding the magazine show's programs because of the level and style of language used ... the concepts being presented are often too sophisticated for the rural audience they are supposed to reach." This finding argues for better targeted programming in RETT II as well as careful attention to field-testing and feedback on programs.

d. Women's Issues

Women are under-represented throughout the entire education system in Nepal. Although approximately 67 percent of the school age population (6-15 years olds) is enrolled in school, only 27.6 percent of those in the primary grades is female. This figure falls to 20 percent at the lower secondary and

eight percent at the secondary level. Thus, approximately one school age girl in four is enrolled. Actual attendance rates are presumably lower. Girls generally are needed at home to look after younger siblings, tend animals, and help with household chores like gathering wood and carrying water. Acharya and Bennett (1981) report that in eight representative districts in Nepal girls aged 5-8 work 3.39 hours per day and girls aged 10-14 work 7.31 hours per day, which is 50 percent more hours of work than for boys in the same age groups.

Even when girls are enrolled in school, their attendance is often sporadic and they frequently bring their younger siblings with them. This situation makes it difficult for teachers to organize their instruction and for girls to perform well in classroom activities. The RETT I final evaluation found that in parts of the country girls are seen clustered in the back of the classroom with their younger siblings, shyly watching the teacher and leafing through their textbooks with little or no involvement in the classroom instruction.

The lack of educated women contributes to the low representation of women in the teaching profession. Of the estimated 6,000 untrained under SLC pass teachers targeted by the RETT I project, only 361 were women, approximately four percent (Planning Division, Statistics Section, MOEC, 1981). This is somewhat surprising since interviews with village parents and teachers suggest that this job would be an acceptable one for women within the village community (AID Project Impact Evaluation Report No. 19, U.S. Aid to Education in Nepal: a 20-year Beginning). Teaching would even be an acceptable job for unmarried girls since they could usually live in their own homes and teach in a primary school nearby.

The Mission is planning an FY 1985 female education project to address this problem directly, RETT II is not able to do so, either with respect to the low representation

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of women teachers or to the low enrollment of girls in the education system. However, there are three ways in which RETT II will have an impact on women's status in education:

i. Training and Monetary Support

All untrained under SLC pass women teachers will be enrolled in RETT II. Assuming they pass the SLC they will receive a salary increase of Rs. 45.00 per month. Although small, this will provide some additional income and, perhaps of more significance, will confer on them the status and competitive edge which comes from holding the certificate. Since RETT I and II will be readily available to all untrained under SLC teachers at no cost to local schools, management committees may also be willing to hire more under SLC women to teach in their primary schools, relying on these programs for upgrading.

ii. Integration of Women's Programming

RED will integrate women's programming into the broadcasts. Women characters will be portrayed in a strongly positive way. Hearing women acting in the roles of teachers and teacher trainers will provide enrolled female teachers and other women listeners a chance to imagine themselves working in these situations and to establish career objectives compatible with these higher level aspirations.

Twenty-four RETT I programs were developed specifically for women, emphasizing the importance of literacy for women in Nepal (now estimated at 12 percent). For example, a broadcast was developed on teacher/guardian relationships, including a special section on recruiting girl students and how to convince guardians to send their girls to school and to keep

them in school. Also, a unit on classroom management techniques included special ideas to encourage girls to participate more actively in the classroom. Such programming will be strengthened and expanded in RETT II.

It is difficult to separate by sex the programming benefits in agriculture, resource conservation, health and nutrition. However, since girls are primarily responsible for these activities in their homes, such materials may be of most benefit to them.

iii. Trained Teachers as Role Models for Girls and Women

The lack of female teachers at the primary and secondary level may be an important factor in maintaining traditional parental attitudes towards educating daughters. Recent research indicates no strong deterrents for community acceptance of female teachers, and increasing the proportion of women teachers was viewed by 16 percent of surveyed teachers in six (6) districts as an effective way of increasing female school participation (Sellar, et. al.). Teacher and school enrollment data tend to confirm the relationship between the percentage of teachers who are women and the percentage of students who are female. If this is correct, RETT I and II should help to increase female enrollment.

e. Effecting School Participation

In Nepal as in other countries, an important factor related to school participation is school quality and relevance, particularly in rural areas. In the relatively few studies of determinants of school leaving behavior in developing countries, poor quality of teachers has emerged as a main reason for students dropping out.

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The quality of facilities and teaching materials, the relevance of the curriculum to local needs and the skills of the teachers may all contribute to low enrollments of both girls and boys. In describing rural schooling, the RETT I final evaluation reported that "often classes are overcrowded, especially the first grade where students often spend two years. A blackboard and chalk tend to be standard fare but adequate benches, writing places and other materials are a luxury." A recent study of 120 schools in 23 villages conducted by CERID reports that 45 percent of the schools had fewer classrooms than needed for the number of students enrolled. Instructional materials were also found to be insufficient, with 32 percent of primary schools lacking general materials such as chalk, board and erasers and 72 percent of primary schools lacking such materials as charts and maps. The quality of teaching staff was also poor; about one-third of the teachers were found to be underqualified for the level they were teaching. Both quality of instructional materials and quality of teachers were found to have positive effects on child school participation (CERID, 1983). Thus, while this project will not provide any materials for the classroom, it is expected that teachers will improve their qualifications as a result of the project and that in the long run, this will positively effect participation of boys as well as girls.

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A N N E X 3

JOB DESCRIPTIONS FOR LONG-TERM TA POSITIONS

A. Researcher/Education Systems Designer

1. General

This person must be a competent education professional with broad, general knowledge of education systems and specific knowledge in the areas of educational technology and distance teaching. He/she should also have demonstrated administrative and managerial skills. While a specialization in education research and evaluation is desirable, it is not essential. The person will function as a full member of the RED staff within the Statistics and Research Sub-Branch and under the general supervision of the RED Director. He/she will be responsible for producing high quality work both at project headquarters and in the field and for helping to coordinate research activities with CERID. While the individual must be senior enough to be accepted as a senior staff member of RED, personal skills in facilitating collegial relationships as a member of a professional team are equally important.

2. Specific

The person must be able to:

- a. develop research/evaluation designs using a variety of research methods and know how and when to apply research findings to the development of educational programs;
- b. analyze the entire project as a system with interacting components and be able to identify, assess and design specific technical and administrative solutions to perceived problems;
- c. understand the technical and instructional potential and limitations of radio as an instructional delivery system;
- d. assist the RED Director as necessary with project management and implementation tasks.

Additionally, the person should have the following desirable but non-essential characteristics:

- a. a working knowledge of Nepali, with enough fluency to conduct business with the project staff;
- b. background knowledge of the history and present status of the Nepal education system;
- c. previous relevant professional experience in at least one other country with education expansion problems and income levels similar to Nepal.

B. Instructional Materials Production Specialist

1. General

This person must be a technically competent professional in the specific area of instructional materials production. He/she will function as a full member of the RED staff within the Curriculum and Textbook Materials Production Sub-Branch under the general supervision of the RED Director and will be responsible for producing high quality work both at project headquarters and in the field.

2. Specific

This person must be able both to perform personally and assist in the training and professional development of the RED staff in the following areas:

- a. analysis of curriculum subject areas and determination of the proper sequence and ordering of topics, assisted by subject matter specialists;
- b. writing instructional lessons based on general curriculum guidelines and specific behavioral objectives that are appropriate for the competency level of the learning audience;
- c. design of multi-media presentations (including graphics, print and radio) for instructional purposes;
- d. writing scripts for radio production or printed materials to supplement the radio broadcasts;
- e. production of radio lessons that are faithful to the scripts, entertaining to the listeners, and educationally effective; and

- f. revision of materials based upon the results observed or obtained from the learners.

Additionally, the person should have the following desirable but non-essential characteristics:

- a. a working knowledge of Nepali, with enough fluency to conduct business with the project staff;
- b. background knowledge of the history and present status of the Nepal education system;
- c. previous relevant professional experience in at least one other country with education expansion problems and income levels similar to Nepal.

A N N E X 4

TELEGRAMS

UNCLASSIFIED

P 070020Z OCT 83

FM SECSTATE WASHDC

TO AMEMBASSY KATHMANDU PRIORITY 4684

UNCLAS STATE 286999

AIDAC

E.O. 12356: N/A

SUBJECT: RETT I EVALUATION - PROJECT COMMITTEE REVIEW

REF: A. KATHMANDU 5531, B. STATE 279080

1. PROJECT COMMITTEE REVIEWED RETT I EVALUATION WHICH WAS RECEIVED MID JUNE. AID/W REGRETS IT HASN'T PROVIDED COMMENTS EARLIER.

2. EVALUATION TEAM MEMBER RICHARD MARTIN PROVIDED ADDITIONAL BACKGROUND INFORMATION ABOUT SUBJECT EVALUATION. FOLLOWING ARE SUGGESTIONS MISSION MAY WISH TO CONSIDER IN PREPARING PP:

A. WHAT IS THE SIGNIFICANCE OF THE CERTIFICATION EXAM HELD IN AUGUST 1983? THIS APPEARS TO BE OUR FIRST OPPORTUNITY TO OBTAIN HARD DATA ON EFFECTIVENESS OF RETT TRAINING. IT WILL BE INTERESTING TO SEE IF, FOR INSTANCE, RETT I HAS HAD A TANGIBLE EFFECT ON TEACHERS WHO HAVE PARTICIPATED IN THE PROJECT. IT WILL ALSO BE INTERESTING TO NOTE WHAT SUBJECTS HAVE BEEN MORE DIFFICULT TO RETAIN THAN OTHERS. WE WOULD LIKE TO SEE THE EXAM RESULTS, AND ANY CONCLUSIONS THAT CAN BE DRAWN FROM THEM, INCORPORATED INTO THE PP, IF POSSIBLE. WE WOULD BE INTERESTED IN LEARNING YOUR VIEWS REGARDING THESE CONCERNS.

B. ENSURE TRAINING COMPONENT IS RESTRUCTURED SO THAT TRAINING THAT IS TO BE PROVIDED IS APPLIED AND APPROPRIATE AND IN PROPER TIMING SEQUENCE. COMMITTEE REALIZES THIS IS FUNCTION OF CONTRACTOR AND RECOMMENDS THAT TRAINING ELEMENT BE MONITORED MORE CLOSELY THAN IN PAST.

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C. ENSURE THERE IS AN INTERNAL EVALUATION COMPONENT. PP. 32-34 OF EVALUATION REFLECT SERIOUS NEGLECT OF THIS ELEMENT IN FIRST PHASE OF PROJECT. MONITORING SYSTEM SHOULD BE PUT IN PLACE AND CONTRACTOR SHOULD PROVIDE SUBSTANTIVE, FOR EXAMPLE QUARTERLY, PROGRESS AND EVALUATION REPORTS WHICH PROVIDE INFORMATION ON PROJECT EFFECTIVENESS AND IMPACT OR POTENTIAL FOR IMPACT.

D. CONSIDER THE USE OF RADIO EDUCATION WITHIN THE SCHOOLS SO CHILDREN ARE REACHED DIRECTLY. INSTRUCTION OF NEPALI LANGUAGE MIGHT BE APPROPRIATE SUBJECT TO CONSIDER TEACHING VIA RADIO.

3. AID/W WISHES TO COMPLIMENT MISSION AND EVALUATION TEAM MEMBERS ON PRODUCING A SUBSTANTIVE, WELL-WRITTEN REPORT, FOR FOLLOWING THE ASIA BUREAU FORMAT FOR PREPARING EVALUATION REPORTS, AND FOR BASIC FINDINGS AND CONCLUSIONS ON DATA COLLECTED IN THE FIELD IN ADDITION TO OTHER SOURCES.

4. COMMITTEE BELIEVES THAT APPROACH OUTLINED IN REFTTEL A. IS APPROPRIATE AND COMMITTEE IS SUPPORTIVE OF MISSION EFFORTS IN RETT II. WE LOOK FORWARD TO RECEIPT OF MISSION APPROVED PP NEXT QUARTER.

DAM

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UNCLASSIFIED

16 SEPT 83

TO SECRETARY WASHDC

FM UNCLAS KATHMANDU 5531

AIDAC

E.O. 12356: N/A

SUBJECT: RADIO EDUCATION TEACHER TRAINING II,

PROJECT NO. 367-0146

FOR: ASIA/PD, S&T/ED, PPC/PDPR

REF: STATE 313273 (82)

1. BEGIN SUMMARY. PER APAC INSTRUCTIONS CONTAINED REFTTEL, THE RETT PROJECT COMMITTEE HAS COMPLETED ITS REVIEW OF RETT I (367-0123) FINAL EVALUATION FINDINGS, AND THE PROPOSED FOLLOW-ON RETT II PROJECT CONCEPT HAS BEEN REVISED ACCORDINGLY. PP PREPARATION IS PROCEEDING ACCORDINGLY.

END SUMMARY.

2. THE RETT I EVALUATION CONCLUDED THAT THE CRITICAL NEXT STEP IS TO CONTINUE WORK WITH NON-HIGH SCHOOL PASS TEACHERS BY PROVIDING UPGRADING CONTENT COURSES (MATHEMATICS, SCIENCE, AND ENGLISH). THESE CAN BE CONVEYED VIA RADIO MORE EFFECTIVELY THAN METHODOLOGY COURSES AND WILL PROVIDE THESE TEACHERS WITH A BETTER AND NECESSARY FOUNDATION IN THE BASIC COURSES THEY ARE EXPECTED TO TEACH (WHILE ALSO PREPARING THEM FOR THE HIGH SCHOOL LEAVING EXAMINATIONS). THE GON AND WE ARE IN AGREEMENT WITH THIS MAJOR RECOMMENDATION AND THEREFORE, AS NOTED IN THE FY 85 ABS, RETT II WILL CONTINUE TO TARGET THIS GROWING NUMBER OF NON-HIGH SCHOOL PASS TEACHERS. IN THIS WAY AID AND THE GON WILL BE BUILDING ON THE LESSONS LEARNED FROM RETT I WHILE, AT THE SAME TIME, UPGRADING THE SKILLS OF THE LEAST TRAINED AMONG ALL OF NEPAL'S TEACHERS.

3. THE EVALUATION ALSO RECOMMENDED EXTENSIVE IN-COUNTRY RADIO EDUCATION RESEARCH TO ENSURE THE EFFECTIVENESS OF RETT II

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AND OF RADIO EDUCATION BROADCASTS IN GENERAL. THIS RESEARCH WILL BE CARRIED OUT BY THE MINISTRY OF EDUCATION AND CULTURE (MOEC) AND TRIBHUVAN UNIVERSITY (TU) AND WILL PROVIDE DIRECTION AND FEEDBACK TO THE PROJECT. IT WILL ALSO PROVIDE CRITICAL DATA WHICH THE MOEC WILL BE ABLE TO USE FOR OVERALL RADIO EDUCATION POLICY DECISIONS. MOEC AND TU'S OWN RESEARCH CAPABILITIES WILL ALSO BE STRENGTHENED AS A RESULT OF THIS PROJECT COMPONENT.

4. OTHER ISSUES: (A) THE RETT I FINAL EVALUATION COST ANALYSIS INDICATED THAT CAMPUS-BASED TRAINING (IN 1982-83) IS ROUGHLY TEN (10) TIMES MORE EXPENSIVE THAN TRAINING VIA RADIO. HOWEVER, NO CAPITAL COSTS WERE INCLUDED IN THIS ANALYSIS AND WE PLAN TO ANALYSE MORE FULLY THE QUESTION OF COST EFFECTIVENESS DURING PP PREPARATION. (B) WE EXPECT THE WORLD BANK WILL APPROVE IN 1983 OR EARLY 1984 (CY) A MAJOR PROJECT IN PRIMARY EDUCATION (\$14 TO \$20 MILLION), WHICH WILL FOCUS ON ESTABLISHING PRIMARY SCHOOL RESOURCE CENTERS (PSRC). THESE CENTERS WILL PROVIDE TEACHER TRAINING AND LOCAL SUPPORT TO RETT II BROADCASTS ALONG THE LINES SUGGESTED BY THE RETT I EVALUATION. ALSO, PENDING THE OUTCOME OF RETT II, THE BANK PLANS TO INCLUDE AN RETT III COMPONENT IN THEIR PROJECT. RETT III WILL PROVIDE IN-SERVICE METHODOLOGY TRAINING TO PRIMARY TEACHERS AND BUILD ON: A) RETT II CONTENT TRAINING AND B) LOCAL SUPPORT SYSTEMS ESTABLISHED BY THE BANK PROJECT ITSELF. WE WILL WORK CLOSELY WITH BANK OFFICIALS IN ORDER TO ASSURE PROJECT COMPLEMENTARITY. (C) WOULD GREATLY APPRECIATE ASSISTANCE OF TWO AID/W OFFICERS FOR APPROXIMATELY THREE WEEKS TDY DURING LAST TWO WEEKS JANUARY/EARLY FEBRUARY TO HELP WITH FINAL PHASE OF PP PREPARATION. WE SUGGEST DAVID SPRAGUE, S&T/ED, AND FRANK METHOD, PPC/PDPR, MAY BE APPROPRIATE CANDIDATES. SPRAGUE HAS GOOD KNOWLEDGE OF THE NEPAL EDUCATION SECTOR AND WILL BE ABLE TO PROVIDE IMPORTANT INPUT WITHOUT NEEDING TO BE BRIEFED EXTENSIVELY, WHILE METHOD'S KNOWLEDGE OF AID'S EDUCATION POLICY AND

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STRATEGY AND HIS EVALUATION BACKGROUND WILL BE VERY USEFUL AT THIS TIME WHEN WE ARE REVIEWING AGAIN OUR LONG-TERM PLANS FOR ASSISTANCE IN EDUCATION AND TRAINING. PLEASE ADVISE THEIR AVAILABILITY.

5. CONCLUSION. THE GON AND WE HAVE REVIEWED PROPOSED PROJECT OBJECTIVES IN LIGHT OF RETT I FINAL EVALUATION FINDINGS. PP PREPARATION IS PROCEEDING ACCORDINGLY.

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UNCLASSIFIED

P 060142Z NOV 82

FM SECSTATE WASHDC

TO AMEMBASSY KATHMANDU PRIORITY 1782

UNCLAS STATE 313273

AIDAC

E.O. 12356: N/A

SUBJECT: APAC - RADIO EDUCATION TEACHER TRAINING (367-0146)

1. APAC MET ON OCTOBER 27, 1982, AND APPROVED SUBJECT PROJECT WITH UNDERSTANDING THAT PROJECT DESIGN WILL NOT BE INITIATED UNTIL EVALUATION RESULTS ARE REVIEWED BY MISSION AND AID/W. ASSUMING A DECISION TO PROCEED, PP COULD THEN BE APPROVED AT MISSION. FOLLOWING ISSUES WERE DISCUSSED DURING MEETING:

2. STATUS OF PROJECT: AS MISSION KNOWS, AID/W BELIEVES THAT AN INDEPTH EVALUATION IS NECESSARY TO ASSESS THE VIABILITY AND EFFECTIVENESS OF THE TEACHER TRAINING. APAC CONSIDERS THE RESULTS OF THIS EVALUATION TO BE ESSENTIAL TO DETERMINE WHETHER A FOLLOW-ON PROJECT IS FEASIBLE AND USEFUL. THE EVALUATION SHOULD NOT TEST EFFECTIVENESS OF RADIO EDUCATION IN GENERAL BUT SHOULD ATTEMPT TO ASSESS WHETHER TEACHER TRAINING HAS INCREASED QUALITY OF CLASSROOM TEACHING. THE DESIGN OF ANY FOLLOW-ON PROJECT DEPENDS ON, AND SHOULD TAKE CAREFUL ACCOUNT OF, THE FINDINGS OF THIS EVALUATION. THEREFORE, PROJECT DESIGN SHOULD NOT BE INITIATED UNTIL THE RESULTS OF THE EVALUATION ARE AVAILABLE. WE ASSUME EVALUATION WILL ALSO INCLUDE COST EFFECTIVENESS ASSESSMENT.

3. FUNDING CONSTRAINTS: ALTHOUGH IT SHOULD BE POSSIBLE TO LOCATE EDUCATION FUNDS FOR THIS PROJECT IN FY 84, MISSION SHOULD BE ADVISED THAT AVAILABILITY OF EDUCATION FUNDS IS LIMITED. CEILING ON FY 84 OVERALL LEVEL FOR NEPAL ALSO LIMITS FUNDING FLEXIBILITY.

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4. INSTITUTION BUILDING OBJECTIVES: PROJECT PAPER SHOULD CLEARLY ARTICULATE PROJECT OBJECTIVES AND HOW WE WILL KNOW WHEN THEY WILL HAVE BEEN ACHIEVED. THESE OBJECTIVES SHOULD INCLUDE TIMING FOR THE GOVERNMENT OF NEPAL'S COMPLETE ASSUMPTION OF PROJECT IMPLEMENTATION AND ITS RECURRENT COSTS.

5. COLLABORATION WITH WORLD BANK: MISSION IS ENCOURAGED TO CONTINUE DISCUSSION WITH WORLD BANK ABOUT COLLABORATION ON THEIR STILL TO BE DEFINED EDUCATION PROJECT IN NEPAL. IF THE BANK IS ABLE TO ASSIST WITH THE COSTS OF SOME TEXTBOOKS AND/OR RADIOS IF NEEDED, AID FUNDS COULD BE CONCENTRATED ON TECHNICAL ASSISTANCE REQUIREMENTS. PROJECT PAPER SHOULD DISCUSS TERMS OF ANY SUCH AGREEMENT.

6. COLLABORATION WITH SCIENCE AND TECHNOLOGY BUREAU: ST/ED EXPRESSED CONTINUING SUPPORT AND INTEREST IN THIS PROJECT. THEY WOULD BE WILLING TO PROVIDE SHORT-TERM ASSISTANCE ON AN INTERMITTENT BASIS IF TIMING IS APPROPRIATE. S AND T ALSO WILLING TO EXPERIMENT WITH SOLAR-POWERED BATTERIES NOW THAT THE TECHNOLOGY IS MORE DEVELOPED SO THAT THEY CAN BE TESTED IN NEPALI CONTEXT.

SHULTZ

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A N N E X 5

PROCUREMENT PLAN

A. Equipment for Radio Nepal

Following is a list of equipment which will be provided to Radio Nepal under the project, including a two-unit Studio-to-Transmitter Link (STL) system, ancillary equipment and spare parts. Although this list has been carefully compiled, some substitutions may be made at the time of purchase. This equipment will be ordered by Radio Nepal, and USAID/Nepal will make payment directly to the supplier. Most of the items indicated below are made in the United States; purchase of Japanese-made items will be covered by waivers (see Annex 11).

QUANTITY	DESCRIPTION	UNIT	TOTAL
2	Model PCL-101 Aural Studio-Transmitter Link, All Solid-State Transmitter and Receiver with Self-contained Power supplies and crystals. One tested on 162.9 MHz, one on 162.0 MHz.	@9,370.00	US\$18,740.00
2	Model TGR-340 Audio Gain Rider, Includes Compressor, adjustable recovery-enable, adjustable recovery delay, clipper control, switchable low-distortion treble AGC, power supply and front-panel calibrated meter. An all purpose automatic level controller for AM-FM-TV-STL-Satellite feed and production service.	2,115.00	4,230.00
2	Model TAL-320 Audio Limiter, includes all-pass network, compressor, adjustable clipper, output low-pass filter power supply and front panel calibrated meter.	2,146.00	4,292.00

QUANTITY	DESCRIPTION	UNIT	TOTAL
4	KTL-6 Connector Kit, for LDF4-50, includes two Type N connectors (female connectors normally supplied) and two 3' RG-8/U Pig-tail assemblies. One kit required for each antenna.	@ 192.00	US\$ 768.00
4	CA5-150H Antenna, Scala five-element Yagi, Horizontally polarized, 9dBd gain.	246.00	984.00
200m	LDF4-50 Heliax Low-loss Coaxial Transmission Line, ½", foam dielectric, 50 ohm, jacketed.	8.00/m	1,600.00
8	26892-2 ANDREW, Grounding Kit for LDF4-50	18.00	144.00
2	43094 ANDREW, Hoisting Grip	30.50	61.00
4	40656-3 ANDREW, Wall/Roof Feedthrough	56.00	224.00
4	40417 ANDREW, Nylon Cable Tie Kit	38.00	152.00
1	SP-12B, PCL-101 Spare Parts Kit		850.00
2	Spare Crystal Kit for PCL-101 (162.0 and 162.0 MHz)	450.00	900.00
1	SP-58 Spares Kit for TAL-320		150.00
1	SP-58 Spares Kit for TGR-340		180.00
2	YAESU Model 7700 Receiver (Made in Japan)	830.00	1 660.00
2	TEMPO Transreceiver (Made in Japan)	900.00	1,800.00
2	ASTRON Power Supply (Made in Japan)	200.00	400.00
2	CUSHCRAFT CRX-150B Antenna	300.00	600.00
200m	RG-8U-214 Coaxial Cable	4.00/m	800.00
2	6 Ft., 19" Rack for Rackmount Ex-Factory	1,200.00	2,400.00
	Airfreight Charges		US\$40,935.00
	Cost Insurance Freight (C.I.F.) Kathmandu		6,500.00
			US\$47,435.00

B. Equipment for Radio Education Division

Following is a list of equipment which will be provided to RED under the project. Again, some substitutions may be made at the time of purchase. All of this equipment will be ordered by RED, using local and off-shore suppliers, to whom USAID/Nepal will make direct payment. Most of the items indicated below are U.S.-made and fully compatible with equipment furnished under the RETT I project. A waiver will be prepared for the generator (1) and trail bikes (3).

1. Electronic Equipment

QUANTITY	DESCRIPTION	UNIT	TOTAL
1	AMPEX ATR-700 Recorder/Reproducer Open Reel Tape Recorder		US\$ 1,850.00
1	UHER 4000AV Monitor, Full Track Recorder/Reproducer Portable Tape Recorder Accessories: Power Supply Z125A Batteries Z4AH (5 in a set) Carrying Case Z524 Microphone M518		1,463.00 111.90 75.50 141.50 115.60
1	TECHNICS RSM-236 Cassette Deck		270.00
	Studio Microphones:		
2	ELECTRO-VOICE Model 635A	@ 82.50	165.00
2	ELECTRO-VOICE Model RE20	415.50	831.00
2	ELECTRO-VOICE Model RE10	142.50	285.00
2	AKG-224 Cardoid Dynamic	412.50	825.00
1	HONDA-5KVA Electrical Generator (Gasoline)		2,290.00
	FIDELIPAC NAB TYPE AA Cartridge Tape:		
50	3 Minute 380-113	6.50	325.00
50	1 Minute 380-44 (70 Seconds)	5.90	295.00
50	5 Minute 380-188	7.00	350.00
50	40 Seconds 380-25	5.75	287.50
50	90 Seconds 380-57	6.00	300.00
	The 580 Model series, which plays back at a higher volume, may be selected instead of the 280 Model Series, but price will be the same		

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QUANTITY	DESCRIPTION	UNIT	TOTAL
	SPARE PARTS:		
	<u>Spare Parts for Ampex ATR-700:</u>		
1	Mix Line Amplifier, P/N 1418976		US\$ 23.00
1	Record Amplifier, P/N 1418977		38.00
1	Power Supply, P/N 1418943		93.00
1	Bias Oscillator, P/N 1418979		41.00
1	Meter Amplifier, P/N 1418980		25.00
2	Pinch Roller, P/N 809-074	@ 11.00	22.00
2	Record Head (Full Track), P/N 809-129	71.00	142.00
2	Erase Head (Full Track), P/N 809-232	37.00	74.00
2	Reproduce Head (Full Track), P/N 809-126	71.00	142.00
	<u>Spare Parts for Gateway-80 Console (Harris):</u>		
1	Gateway-80 Audio Booster Printed Circuit Card, P/N 994-6755-02		275.00
1	Gateway-80 Audio Output Printed Circuit Card, P/N 994-6754-002		410.00
1	Gateway-80 Audio Pre-Amplifier Printed Circuit Card, P/N 994-6911-001		195.00
1	Gateway-80 Power Supply Register Card, P/N 994-6753-002		344.00
	Ex-Factory		US\$11,805.00
	Airfreight Charges		3,600.00
	Cost Insurance Freight (C.I.F.) Kathmandu		US\$15,405.00

2. Vehicles

The Sano Thimi RED Office is located some distance from Kathmandu, and presently the entire staff must rely for transportation on an expensive-to-run Scout Van supplied by the RETT I project. While this vehicle is adequate for carrying staff to and from the city, it isn't appropriate for single person trips. To relieve this situation, the project proposes buying three (3) Honda Trail Mobikes 125 cc (or equivalent) for use primarily

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by the Project Manager (RED Director), the long-term advisors, and the "Magazine Reporter" who will need to travel around easily.

QUANTITY	DESCRIPTION	UNIT	TOTAL
3	Honda Mobikes 125 cc	\$1,605,00*	\$4,815.00

(*includes C.I.F. Kathmandu)

3. Furniture, Window Grates and other Office Fittings

These items have not been costed out in detail but essentially what is needed is all office furniture for the new annex, window grates for security, and other miscellaneous materials. If there is money remaining in this line item, it may be used for electronic equipment needs which may arise.

\$79,780.00

4. Radios

As indicated in the project budget, plans have been made to purchase up to 4,800 short-wave radio receivers at an approximate C.I.F. Kathmandu cost of \$ 30.00 each. These radios will, in turn, be sold on an installment basis to enrollees, funds to be used to buy more radios or to support in some other way RED operations, as may be agreed upon between the MOEC and USAID/Nepal. In this way maintenance problems should be minimal, as enrolled teachers will be willing to pay any maintenance expenses for radios that will be their personal property.

The sale and distribution of these, as well as used RETT I radios, will be handled by the District Primary School Supervisors selected to act as RETT Coordinators (one per district), under the general supervision of the District Education Officer.

A firm decision on which type of MW/SW 1/SW 3 (3.2-12 MHz, 90 m - 25 m) radio to buy has not yet been made, pending receipt of all

quotes. The RETT I project procured the PLS 68 UNICEF receiver which, while it has performed adequately, does have some disadvantages. For example, the buttons and antenna often break and it does require six batteries, which are expensive for a primary teacher to buy. Many of the PLS 68 receivers are currently broken down, but this may be due simply to the lack of funds for minor, routine repairs rather than to poor quality of the radio itself. The UNIPAC catalogue, which offers only this radio, quotes a current (1984) C.I.F. Kathmandu price of \$ 30.00 per unit. UNIPAC/Copenhagen has indicated they would be able to meet at least first year needs (1,500-2,000 units) at this price. The National R-4300 Series receiver, which is assembled in Nepal, is also being considered. It does use only four "D" batteries (or AC 220-240 V current), and purchasing this radio would support local private enterprise. However, the price quote is \$ 48.00, the radio does have the retractable antenna which easily breaks, as well as FM capability which adds to the price but which is useless in Nepal. Another, perhaps best possibility is the India-made Philips Philetta model which has few knobs or buttons to easily break, takes four "D" batteries or 220-240 V current, and has the antenna in the handle. If the price quote is competitive, the project will likely procure this model. Whichever model is purchased, the producer/supplier will be required to stamp in the plastic of each unit the AID emblem and the phrase (in Nepali) "Radio Education Teacher Training, Ministry of Education and Culture, His Majesty's Government of Nepal, With Assistance of the Agency for International Development, United States of America." All other provided commodities will be similarly marked.

QUANTITY	DESCRIPTION	UNIT	TOTAL
4,800	Radio Sets	\$30.00*	\$144,000

(*includes C.I.F. Kathmandu)

GRAND TOTAL \$294,000

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A N N E X 6

Nepali Fiscal Year 2040/41 (1983-84) PED Budget

Salary	NRs. 270,000
Allowances	58,000
T.A.D.A. (Travel Allowance/Daily Allowance)	135,000
Service	28,000
Maintenance	15,000
Stationery	28,000
Books	8,000
Gasoline	17,000
Logistics	14,000
Honoraria	30,000
Contingency	8,000
Machinery	5,000
	<hr/>
Total	NRs. 624,000
	(\$ 39,000)

DETAILS OF ESTIMATED GON INPUTS

2041/42 - 2044/45

A. RED Operation	2041/42 (1984/85)	2042/43 (1985/86)	2043/44 (1986/87)	2044/45 (1987/88)	Sub-Total
1. Salaries	363,787	400,166	440,183	484,198	1,688,334
2. Allowances	110,424	122,547	134,802	148,282	516,055
3. T.A.D.A	200,000	220,000	242,000	266,200	928,200
4. Service	28,000	31,000	34,000	37,000	130,000
5. Maintenance	15,000	17,000	18,000	20,000	70,000
6. Stationery	28,000	31,000	34,000	37,000	130,000
7. Books	8,000	9,000	10,000	11,000	38,000
8. Gasoline	25,000	28,000	30,000	33,000	116,000
9. Logistics	14,000	15,000	17,000	19,000	65,000
10. Contingency	8,000	9,000	10,000	11,000	38,000
11. Machinery	5,000	6,000	7,000	8,000	26,000
Annual Total	805,211 (\$50,326)	888,713 (\$55,545)	976,985 (\$61,061)	1,074,680 (\$67,167)	3,745,589 (\$234,099)

B. MOEC Field Operations	2041/42 (1984/85)	2042/43 (1985/86)	2043/44 (1986/87)	2044/45 (1987/88)	Sub-Total
1. Salary for 75 Primary School Supervisors (half time)	324,000	356,400	392,040	431,244	1,503,684
2. Salary for 10 Regional Directorate Supervisors (half time)	64,800	71,280	78,408	86,248	300,736
Annual Total	388,800 (\$24,300)	427,680 (\$26,730)	470,448 (\$29,403)	517,492 (\$32,343)	1,804,420 (\$112,776)

Note: Support costs for field staff will also be borne by GON, however, these costs have not been included here because of difficulty in arriving at reasonable estimate.

C. Capital Improvement (all years) estimated		
1. Value of property on which RED annex/building will be located		NRs. 355,191 (\$ 22,200)
2. Building construction (Annex) ^{1/}		NRs. 480,000 (\$ 30,000)
	Sub-Total	NRs. 835,191 (\$ 52,200)
D. Total GON input during project period		NRs. 6,385,200 (\$399,075)

^{1/} This NRs. 480,000 is a contingent line item which may be applied to other agreed upon priorities, if funding for construction is met by the World Bank or if it is determined to be in the interest of the project to direct AID funds to this component.

A N N E X 7

SUMMARY OF RECENT STUDIES AND EXPERIENCE ELSEWHERE WITH RADIO EDUCATION

The use of radio for educational purposes is not new to developing countries. Mexico, Colombia, Paraguay, Brazil in Latin America; Senegal, Liberia, Mali, Kenya, Lesotho in Africa; Thailand, Philippines, Korea, India in Asia are just some of the countries that have a long history of using educational radio. In most instances, these applications are supplemental to the formal school system or are directed to adult audiences.

There has been little experience with using radio to teach secondary school subjects directly to teachers. One project that has done it, and which has direct relevance for Nepal's teacher training program, is the Kenya Radio Correspondence project, which began with AID assistance in 1967. Using correspondence courses and radio instruction, over 12,000 primary school teachers passed national examinations and qualified for promotions and higher salaries. The Correspondence Course Unit, which implemented the project, still exists as an operational component of the Institute of Adult Studies but the focus of its efforts has broadened to include many non-formal education activities. The RETT II project in Nepal differs from Kenya's experience in the level of instruction.

The Science and Technology Bureau in AID has had an intensive research and development (R&D) program in instructional radio for the past ten years. The purpose of this R&D effort is to demonstrate the effectiveness of radio to teach the core subjects in primary school classrooms. The programs are designed to build on the present teacher capabilities and deliver high quality instruction to all primary school students, especially to those in remote rural areas.

The Radio Math project in Nicaragua (1974-1979) and the Radio Language Arts project in Kenya (1981-1985) have both demonstrated dramatic achievement gains (in mathematics and English, respectively) for primary school students using radio. Another S&T/ED project in the Dominican Republic (1982-1986) has begun to demonstrate that effective primary instruction can be delivered to children who don't have access to primary school but are willing to gather in a group daily for a one hour radio broadcast.

While AID has concentrated its radio education assistance on the primary school level, several countries have implemented open universities using educational radio for the growing number of students unable to attend a regular university.

Pakistan, Thailand, Iran and most recently, Indonesia, are going ahead with instruction by radio to provide an alternative to regular university systems.

Radio has also been used in health, nutrition, family planning and agriculture programs assisted by AID. In each instance the radio fulfills an educational function, providing information and advice, giving directions, motivating the listeners to adopt a specific new behavior or practice.

This radio experience has produced the following conclusions:

- radio can teach by itself but results are improved when programs are combined with personal interaction;
- the development costs of radio education programs can be high but wide-scale implementation for large audience can produce dramatically low unit costs;
- batteries are a major cost item and should be taken into account when analyzing the costs of large-scale radio projects;
- once radio has demonstrated its effectiveness in one application, it often evolves into multiple educational use within a country;
- substantial use of educational radio demands careful planning of air time, especially in countries where a separate channel for educational programs is not available;
- radio is the one mass medium that reaches the most remote areas of almost all countries.

A N N E X 8

OTHER RADIO NEPAL EDUCATIONAL PROGRAMS

1. Ministry of Education

There are currently seven programs per week, each of one-half hour duration: (1) an information program for teachers which answers questions and provides general information on Nepal's education system and on professional subjects like teaching methodologies in science and mathematics; (2) women's equal access to education sponsored by UNESCO (on Monday and Thursday evening); (3) school broadcasts for in-school use: on Sunday - Nepali language for grade I; (4) on Monday - Nepali language for grade II; (5) on Tuesday - Nepali language for grade III; (6) on Wednesday - social studies for grades IV & V and (7) on Thursday - English language for grade IV. The in-school broadcast materials are prepared by the Curriculum, Textbook and Supervision Development Center (CTSDC) and other specialists hired under contract as and when necessary.

UNICEF was involved in this in-school program from 1972-1977 (5 years) during which time they provided an advisor and a short-term technician to help prepare a recording studio at Sano Thimi. UNICEF also provided recording instruments along with 1000 radio sets (in installments of 500 each). The distribution of radios for the in-school program has reached 983 sets, covering 19 districts. Learning results are not known since no systematic and comprehensive impact study has been made to assess levels of achievement. The complaints of teachers that the quality of reception is extremely uneven should be better now, since installation of a 100 KW transmitter in November 1982 under RETT I. Regarding the maintenance of radios, all the schools have been instructed by CTSDC to send their radio to Kathmandu (Sano Thimi) for repairs, if repair facilities are not available in their area.

2. Agriculture

The agriculture program, developed by the Agriculture Information Division of the Department of Agriculture, is broadcast four times a week (Sunday, Monday, Tuesday and Friday), each program being of 15 minutes duration. There are four formats: the Sunday program is a magazine program which includes information on five to seven different agricultural topics such as credit and inputs, livestock, etc.; the Monday program is a questions

and answers session for farmers; Tuesday is a family drama, with each situation built around seasonal farming activities; the Friday program is built around a Junior Technical Assistant (JTA) and an old woman, and consists of a dialogue between the two. According to the Agriculture Information Division, the agriculture programs in general are among the most popular programs in Nepal and the JTA and old woman program is a favorite. This is probably largely attributable to an appealing format, with identifiable and believable characters - having been established as real persons with the listeners, to talented writers and to the utilization of prime listening time in the evening.

A formal study of listening habits has not been made to evaluate the effect of radio broadcasts on farming practices. However, according to the Agriculture Information Division, a high percentage of farmers use improved practices that were advocated on the radio program. This can be concluded from the farmers' questions, received by this Division in the form of letters for the questions and answers program and also through random sampling interviews with farmers during field visits. Though the evidence of impact of the agriculture program on farmers is not conclusive, it does point to the value of radio broadcast as an educational tool. This is specially true in the remote areas where the Department of Agriculture has not been able to post JTAs.

In order to find out the impact of agriculture radio programs on acceptance of improved farming practices, the Agriculture Information Division plans to conduct a study in six sample districts. This study is being financed by FAO and should be complete by mid-summer 1984.

3. Family Planning

There are two family planning programs broadcast on Monday and Saturday evenings, one for 15 and another 20 minutes. Both programs are informational, with no fixed format such as the agriculture program has. The broadcast materials for this program are prepared by the GON Family Planning/Maternal and Child Health Office and the Nepal Family Planning Association. According to the survey report, "Baseline Study for Population Education Programmes in Nepal" completed in March 1981 by New ERA, in 20 districts of Nepal, 35 percent of males and 34 percent of females listen to the family planning programs. The conclusion of the report is that

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"Radio was another source of information that respondents mentioned. But it must be pointed out that about half the men and almost two-thirds of women do not listen to the radio at all. Therefore, its reach is rather restricted to the few radio owners and those that assemble in such households. But since an overwhelming majority listen to Radio Nepal, it can be said that these listeners are aware of various aspects of development issues, including family planning, health, agriculture and education. The major advantage of radio over other channels of communication is that it can penetrate even the most remote areas and can be understood by even illiterate people. But this advantage is outweighed by the fact that very few people own radios or listen in. But the best potential of radio as medium of population education must not be ignored and its development and expansion must be given full support."

4. Women's Program

This program is prepared and broadcast by Radio Nepal six days a week, Sunday through Friday from 1:00-1:30 P.M. (one-half hour). The New ERA report of March 1981 indicates that 7 percent of males and 14 percent of females listen to this program. The problem with this program is that a very low percentage of women have access to a radio.

5. Youth Program

This program is prepared by Radio Nepal and broadcast every Saturday from 7:30-7:50 A.M. It is directed to "Youth", under 40 years of age, and it is largely given over to exhorting young people to feel greater social responsibility, develop better moral attitudes, and participate in national development. Since no survey has been made as to the effectiveness and impact of this program, little can be said about its utility.

Conclusion

Although a considerable amount of time, money and talent is currently devoted to radio education programs, there has been no concerted evaluation of their effectiveness and this appears to be a pressing need. According to findings from the New ERA report of March 1981 the agriculture and family planning programs are by far the most highly rated.

The following table, taken from the New ERA report of March 1981, will give some general idea as to listener choices:

Respondent's Choice of Radio Programmes***

Sex of Respondents	Total number of Respondents	Songs <input checked="" type="checkbox"/>	News <input checked="" type="checkbox"/>	F.P. Programme	Devotional Songs <input checked="" type="checkbox"/> (Bhajan)	Agriculture Programme	Women's Programme <input checked="" type="checkbox"/>	Commercial Programme	Rural Programme	Ras Rang Programme** <input checked="" type="checkbox"/>	Military Programme	Police Programme	Only News	Others
Male	207	64	67	35	18	29	7	25	22	7	4	13	8	16
Female	109	67	36	34	33	19	14	10	9	6	-	6	*	-

Note: Percentages total more than 100 as respondents gave more than one choice.

* Denotes less than one percent

** Discontinued

1/ Programs prepared by Radio Nepal; the rest are from respective GON departments.

*** From "Baseline Study for Population Education Programmes in Nepal", New ERA, March 1981.

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A N N E X 9

WORLD BANK EDUCATION PROJECT

The World Bank approved in April 1984 a \$16.7 million pilot project aimed at improving primary education in Nepal.^{1/} The project will center around the establishment of over 70 Primary School Resource Centers (PSRCs) located in six (6) of the country's 75 districts. Each PSRC will service about ten Satellite Primary Schools and will have five primary teachers, one primary teacher-supervisor and one headmaster, all of whom will serve as resources for the Satellite Schools within their jurisdiction. The PSRC will function as a training center and distribution point for the supply of education materials to the ten or so member schools.

In order to support the establishment of these PSRCs and, in general, to strengthen the Ministry of Education and Culture's management and planning capabilities, the following project inputs are planned:

1. Development and implementation of an integrated training program aimed at primary teachers, supervisors, headmasters, district education officers, the community and parents.
2. Development of various educational materials, manuals and guidelines to be used in support of the various training programs. Some teaching materials and limited equipment is to be supplied to all project schools.
3. Establishment of two new units within the Curriculum, Textbook and Supervision Development Center (CTSDC), the body within MOEC which will assume overall responsibility for all educational training and materials production. One of these new units will be the Primary Supervision and Training Unit (PSTU) and the other the Primary Materials Unit (PMU).
4. Strengthening of research, design and implementation capabilities of the School Building Unit (SBU) within the Planning Division, MOEC, in order to assure that schools, especially those within the project area, meet minimum construction and maintenance standards.

^{1/} The project consists of a \$12.78 million IDA loan, \$1.7 million in UNICEF-provided TA, and a GON contribution of \$2.22 million.

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5. Strengthening of the research capabilities of the National Education Committee so that it can make informed policy recommendations, and expansion of the MOEC's Planning Division and School Administration Division.
6. Various physical facilities will also be provided:
 - a. At the central level, a new building for the CTSDC and for the Controller of Examinations;
 - b. At the regional and district levels, a general upgrading of office facilities (to be limited to two regional and four district centers); and
 - c. At the local level, limited support for school construction, especially of the schools which will function as Resource Centers.

Support at the regional, district and local levels is planned in an effort to help the MOEC strengthen decentralized management of the education system.
7. Support to the MOEC to enable it to undertake various research activities:
 - a. A primary school survey of a second group of about 20 districts;
 - b. A study of teacher training;
 - c. An evaluation study of the Bank project itself; and
 - d. On an on-going basis, preparation studies for future education projects.
8. Twelve person-years of overseas training and study tours for MOEC officials; eight person-years of technical assistance; 20 person-years of locally contracted consultancy services; and establishment of a project implementation office. The project will also help finance some incremental operating costs.

A N N E X 10

ADDITIONAL COMPONENT FUNDED CENTRALLY FROM AID/WASHINGTON

AID has embarked on a ten year project for "Improving the Efficiency of Education Systems" in selected developing countries. This is an AID/Washington centrally funded project implemented by the Office of Education, Science and Technology Bureau (S&T/ED) in collaboration with AID missions and host governments. The project is designed to assist developing countries, primarily in Africa but also in other parts of the world, to strengthen the efficiency of their education and training systems. It is designed to assist countries that have severe budget constraints in the human resource development area and are seeking ways to improve the efficiency of their current systems. It is anticipated that at least five countries in Africa, one in Asia and one in Latin America will be assisted by this project.

Specifically, the project will assist selected countries to:

- improve educational decision making by improving data collection, analysis and planning methodologies;
- conduct small-scale research and development activities that test new solutions to improve the efficiency of education/training systems;
- transfer ideas and approaches which have proven successful in other countries;
- assist the institutional development of analysis and planning units to improve the efficiency of the education systems.

The project will assist AID missions and host governments in the design of projects to overcome the main bottlenecks within the education system. Assistance will be available to review and suggest improvements in the implementation of ongoing projects.

Regular exchanges among the participating countries during the project will develop a problem-solving network focused on common human resource development problems. Fundamental to the project is a strong institutional development and in-service training component to enable a cadre of specialists in each participating country to develop the skills needed to effectively plan, implement and evaluate education and human resource development at the national and local levels. To realize these ambitious goals, the project anticipates nearly 200 person years of technical assistance during the initial five years.

Seven countries will receive central funding and six have already been identified: Somalia, Niger, Liberia, Botswana, Cameroon in Africa, and Haiti in the Latin America region. Nepal has been tentatively selected in the Asia region, pending discussions in September 1984 with MOEC and other GON officials.

A contract with a U.S. contractor was signed in the middle of February 1984. The contractor will be a consortium headed by Florida State University joined with the State University of New York at Albany, the Institute for International Research, Howard University, Penn State University and Syracuse University.

If agreement is reached on Nepal's participation with AID in the project, the specific type and amount of technical assistance would be negotiable. The following list is illustrative of what might be appropriate in Nepal:

1. One long-term resident advisor, possibly located in the MOEC's Statistics Division to help improve data collection and analysis capabilities;
2. Short-term technical assistance--up to eight weeks annually--to work with individuals and small groups on the design of specific research and development projects identified by the MOEC;
3. external "networking" and dissemination of MOEC research and evaluation activities to facilitate direct contact and observation of projects in other countries with similar problems and potentially transferable alternative approaches. Annually, approximately two (2) staff members of MOEC to attend conferences/workshops and to observe relevant research in progress in the U.S. or in other countries;
4. funding for small-scale research and development studies within Nepal.

As indicated above, these interventions are only illustrative and will be worked out in final with GON officials when an S&T/ED representative visits Nepal in September 1984.

A preliminary budget for this S&T/ED-funded component has been developed as follows. The details of this budget will also be finalized in September 1984.

a.	24 person months for long-term Resident Advisor (\$10,000/month)	\$ 240,000
b.	6 person months of short-term TA (\$10,000/month)	60,000
c.	4 person months external travel for MOEC officials to visit relevant projects in other countries (\$5,000/month)	20,000
d.	In-country activities to be developed (research, workshops, etc.)	180,000
		<hr/>
		\$ 500,000

A N N E X 11

ACTION MEMORANDUM FOR THE DIRECTOR

FROM: Virgil Miedema, PDIS'

SUBJECT: Radio Education Teacher Training II Project (367-0146)

Problem: Your approval is required for a grant of \$1,619,000 from the FAA Section 105 (Education and Human Resources) appropriation to Nepal for the Radio Education Teacher Training II Project (RETT II). The project will be incrementally funded during FYs 1984-85 with a planned FY 1984 obligation of \$950,000.

Discussion: The purpose of this project is to improve the knowledge and skills of primary school teachers through radio-based in-service training. To accomplish this, the project will: (a) upgrade the capability of the section within the Ministry of Education and Culture (MOEC) which is responsible for radio education and (b) improve research capabilities so that future radio education activities can be based on more reliable information.

Development of this follow-on project has taken into careful consideration the results of the Radio Education Teacher Training I (RETT I) program (AID Project 367-0123). Through this earlier project AID provided assistance to the Government of Nepal (GON) to upgrade the quality of primary education, by establishing a capacity within the MOEC for using radio education as a means of training large numbers of unqualified primary school teachers in widely dispersed geographic areas. RETT I concentration has been on providing teaching skills upgrading to primary school teachers who have not received the School Leaving Certificate (SLC) degree, the equivalent of a high school diploma. An evaluation of this project concluded that it was successful at reaching the target groups of untrained rural primary teachers. The project clearly had an impact on the teachers' knowledge of teaching methods and subject areas, however, the evaluation report recommended continued work with these teachers to improve further their understanding of basic academic courses. In agreement with this major recommendation, this project will continue to concentrate on the growing number of primary teachers who do not have high school diplomas, in order to improve their basic knowledge of key academic subjects which they are expected to teach in their classrooms. In this way, the GON, with AID's assistance, will be building on the lessons

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learned from RETT I while, at the same time, upgrading further the skills of the least trained among Nepal's teachers.

Concentration during the life of the project will be on English, Nepali, mathematics and science. Radio programs, supported by written materials, will be broadcast on a regular schedule by Radio Nepal. A small but significant portion of each program will convey information on development topics important to teachers and also to general listening audiences. The MOEC, the Implementing Agency, will coordinate the programs implemented in this project with RETT I programs. The project will also provide training and equipment to Radio Nepal.

A separate but complementary component of the project funded centrally from AID/Washington (Office of Education, Bureau for Science and Technology), will provide technical resources to strengthen the analytical capacity of the Ministry of Education and Culture (MOEC). The focus of this component will be broader than the RETT II project but will provide assistance to the Radio Education Division (RED) of the Curriculum, Textbook and Supervision Development Center as well as to other divisions of the MOEC.

The AID grant represents \$1,619,000 of the total project cost of \$2,138,000 equivalent. The AID portion will finance long-term technical advisors in: (a) research and education systems design and (b) instructional materials production. The work of these two specialists will be supplemented by short-term consultants as well. The AID grant will also fund training of GON staff in Nepal and the United States; research and evaluation; supplementary materials to support the actual broadcasts; and commodities for the MOEC and Radio Nepal.

In addition to the above mentioned bilateral AID grant for this project, \$500,000 of technical assistance and other support will be provided to the MOEC through the centrally funded (S&T/ED) project.

The project will be implemented by the Radio Education Division (RED) of the Ministry of Education and Culture. The Director of RED will be the Project Manager for this activity. Long-term technical assistance to RED will be provided through a local non-PSC contract and a direct contract with a U.S. educational or small business institution. The U.S. contractor will also provide some

short-term advisors as well as assistance in arranging state-side short-term training for Nepalese participants.

The project is consistent with AID/Nepal's CDSS which recognizes the importance of improving education as a major building block in Nepal's development and as one of the priority areas for AID involvement. This activity also conforms to AID's strategy objectives and to the Asia Strategic Plan's priorities for the education sector of concentrating on selected areas in which innovative approaches may be demonstrated and in which media, such as radio, can be used cost-effectively to support extension of education in rural areas.

Conditions: The following conditions precedent to disbursement are included in the Project Authorization:

- that second trimester (November 1984) releases to the GON will depend on the GON having established and filled 46 permanent positions within the Radio Education Division;
- that second trimester (November 1984) releases to the GON will depend upon USAID/Nepal having received firm nominations from the GON for the four (4) long-term participant positions;
- that release of project-purchased radios will be contingent on the GON having established a special project account for the proceeds from the sale of these radios, proceeds to be used for the purchase of additional radios or for support of other RED activities, as may be agreed upon between the MOEC and USAID/Nepal.

Covenants: In addition to a standard budget covenant, the Authorization includes additional covenants obligating the GON with respect to: (a) an overall primary teacher training plan; (b) submission of progress reports; (c) transmission of RETT broadcasts; and (d) maintenance of the 46 permanent positions in RED.

Congressional Notification/Audit: A Congressional Notification for this project was forwarded on March 27, 1984. The waiting period expired on April 11, 1984 without objection.

Waivers: A waiver of the FAA Section 110(a) requirement of 25 percent host country contribution is requested. The GON share will total \$399,000 equivalent or 19.0 percent of the total project cost. In view of Nepal's condition as a relatively least developed country, this contribution is already significant and a waiver is considered appropriate.

Two additional requests for waivers of Source, Origin and Nationality Requirements of the Foreign

Assistance Act of 1961 are attached herewith. Your approval of these two separate documents will allow purchase of necessary equipment from a Geographic Code 935 country (Japan), once a Project Grant Agreement has been signed with the GON.

Recommendation: That you sign the attached waivers (2) and Project Authorization.

Attachment:

1. Project Authorization
2. Waivers (2)
3. Project Paper

Clearance:

PDIS:DClark	<u>DC</u>
PRM:GLewis	<u>GL</u>
FM:RDropik	<u>RD</u>
RLA:SAllen	<u>(draft)</u> (Dhaka 2585, April 11, 1984)
DD:JBallantyne	<u>JB</u>

PDIS:VMfedema:nty:5/18/84

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UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT
MISSION TO NEPAL

PROJECT AUTHORIZATION

NEPAL

Radio Education Teacher
Training II
Project No. 367-0146

Pursuant to Section 105 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Radio Education Teacher Training II Project (the "Project") for Nepal (the "Cooperating Country") involving planned obligations of not to exceed one million six hundred and nineteen thousand U.S. Dollars (\$1,619,000) in grant funds over a four year period from date of authorization, subject to the availability of funds in accordance with the AID OYB/allotment process, to help in financing foreign exchange costs for the Project. The planned life of the Project is from the date of initial obligation until September 30, 1989.

The Project consists of upgrading primary teacher skills through the medium of radio; introducing appropriate development topics into the radio curricula; upgrading overall Government of Nepal (GON) radio education research capability; and creating within the Radio Education Division of the Ministry of Education and Culture (MOEC) the capability to design, test, implement and internally evaluate a wide variety of radio education teacher training activities.

Grant funds will finance two (2) long-term technical advisors, short-term consultants, training for GON staff, research and evaluation, production of supplementary materials to support broadcasts, and commodities for the MOEC and Radio Nepal.

The Project Agreement(s) which may be negotiated and executed by the Officer(s) to whom such authority is delegated in accordance with AID Regulations and Delegations of Authority shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as AID may deem appropriate:

A. Source and Origin of Commodities, Nationality of Services

Commodities financed by AID under the Project shall have their source and origin in the Cooperating Country, in the United States (000) or in countries included in AID

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Geographic Code 941, except as AID may otherwise agree in writing. The suppliers of commodities or services, including ocean shipping, shall have the Cooperating Country, the United States or countries included in AID Geographic Code 941 as their place of nationality, except as AID may otherwise agree in writing.

B. Conditions Precedent to Disbursement

1. Prior to the second trimester (November 1984) release of any AID funds to the GON, the GON will have established and filled forty-six (46) permanent positions within the Radio Education Division.
2. Second trimester (November 1984) releases to the GON will also depend upon USAID/Nepal having received firm nominations for the four (4) long-term participant positions.
3. Prior to the release of Project-purchased radios, the GON will have established a special Project account for the proceeds from the sale of these radios, proceeds to be used for the purchase of additional radios or for support of other RED activities, as may be agreed upon between the MOEC and USAID/Nepal.

C. Covenants

1. Except as AID may agree otherwise in writing, the Cooperating Country will agree to:
 - a. budget for and provide funds and other contributions to the Project on a timely basis according to annual Project budgets;
 - b. work toward developing a comprehensive primary teacher in-service training system, incorporating RETT I and RETT II;
 - c. provide USAID/Nepal with detailed Project progress reports in English at the end of each Nepali fiscal year during the life of the Project, i.e., July of 1985, 1986, 1987, 1988 and 1989;
 - d. provide highest possible quality, nationwide transmission of RETT programs.
 - e. maintain the 46 permanent positions in RED which are the subject of a condition precedent.

D. Waiver

The following waiver is hereby approved:

The requirement of Section 110(a) of the FAA that the Cooperating Country provide twenty-five percent (25%) of the cost of the Project, pursuant to the provisions of Section 124(d) of the FAA on the basis that the Cooperating Country is determined to be a relatively least developed country by the United Nations Conference on Trade and Development (UNCTAD) and on the basis that financial constraints prohibit the Cooperating Country from fully meeting this requirement.

Clearance

PDIS:DClark
PRM:GLewis
AM:JHester
FM:RDropik
DD:JBallantyne



Signature



Dennis J. Brennan
Mission Director

May 31, 1984
Date

RLA:SAllen (Dhaka 2585, April 11, 1984)
PDIS:VMjedema:nty:5/18/84

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His Majesty's Government

MINISTRY OF FINANCE
Bagh Durbar,
KATHMANDU
NEPAL

July 30, 1984.

Dear Mr. Brennan:

His Majesty's Government of Nepal (HMG/N) hereby requests continued USAID/Nepal support for the radio education teacher training activities of the Ministry of Education and Culture.

In making this request, it is our understanding that this support will help to enable HMG/N to expand the activities which were begun under the recently completed Radio Education Teacher Training Project (367-0123).

Sincerely yours,

Babu
(Babu Ram Shrestha)
Under Secretary

Mr. D.J. Brennan
Director
USAID/Nepal
Kathmandu.

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